DOCUMENT RESUME

ED 044 846 EC 030 604

TITLE	A Handbook on the Theory and Practice of Arts and Crafts for Educable Mentally Retarded Children and Youth.
INSTITUTION	Mississippi State Dept. of Education, Jackson.
PUB DATE	[62]
NOTE	107p.
EDRS PRICE	EDRS Price MF-$0.50 HC-$5.45
DESCRIPTORS	Art Materials, *Educable Mentally Handicapped, *Exceptional Child Education, *Handicrafts, Mentally Handicapped, Teaching Guides
IDENTIFIERS	Mississippi

ABSTRACT

Guidelines are presented for educational experiences in arts and crafts for the educable mentally retarded (EMR). A general discussion summarizes principles of teaching EMRs, and the place, value, and vocational implications of arts and crafts in the curriculum. Arts and crafts projects with various materials are detailed. Also included are some recipes, suggestions for equipment and supplies, hints, sources of material, and a list of resources. (KW)

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A HANDBOOK
on the
Theory and Practice of Arts and Crafts
for
Educable Mentally Retarded Children and Youth

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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The State Department of Education
Jackson, Mississippi

J. M. Tubb, State Superintendent of Education
A. P. Bennett, Director of the Division of Instruction
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EC 030 604E

FOREWORD

The Mississippi State Department of Education has developed this handbook on the theory and practice of arts and crafts, with the cooperation of the University of Southern Mississippi and the assistance of teachers of retarded children and other educators.

This publication, the second in a series, attempts to furnish guidelines for meaningful educational experiences in the area of arts and crafts. Although it was designed primarily for use with the educable mentally retarded children and youth, its usefulness will likely extend into many other areas of educational activity.

It is our sincere hope that this handbook will be used to stimulate the interest and promote the development of the boys and girls for whom it was prepared.

J. M. TUBB
State Superintendent of Education

ACKNOWLEDGMENTS

This publication is the result of cooperative planning on the part of the Division of Instruction in the State Department of Education and the University of Southern Mississippi.

The major part of the material for this handbook was produced in a workshop held on the campus of the University of Southern Mississippi during the summer of 1962. We are most grateful and appreciative to Dr. Ray S. Musgrave, Head of the Department of Psychology at the University of Southern Mississippi, who served as Workshop Director, to Mrs. Jean Hooker, who assisted with the workshop, and to the administration for the excellent facilities provided and the many courtesies extended. Certainly, this handbook would not have become a reality without the diligent efforts and cooperation of the following workshop participants.

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The manuscript was prepared under the direction of Mr. W. R. Burris, Supervisor of Special Education, State Department of Education. Working closely with him were members of the Publication Steering Committee who spent many diligent hours refining and organizing material produced by the workshop. Members of this committee were as follows: Miss Mary Stella Boykin, Meridian; Mrs. Edith Fletcher, Sumrall; Mrs. Sally Hemphill, Natchez; Mrs. Brooks Marr, Tupelo; Mrs. Thelma Rogers, Booneville; and Mrs. Ella Marie Sones, Picayune.

The Mississippi Accrediting Commission provided funds for financing the expenses of the Steering Committee in the preparation of the manuscript.

Grateful appreciation is expressed to each and every person who had any part in this undertaking.

A. P. BENNETT, Director
Division of Instruction

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CHAPTER I

INTRODUCTION TO THE TEACHING OF ARTS AND CRAFTS FOR THE EDUCABLE MENTALLY RETARDED CHILD

Principles of Teaching Educable Mentally Retarded Children

An often quoted philosophy of education is that every child should have an opportunity to develop and progress to the extent of his ability and potential. A parallel tenet held by most educators is that the child should be provided the experiences which will afford the satisfaction of achievement and help him acquire a sense of worth by making an acceptable contribution to his own group. The ultimate goal of education for educable mentally retarded children and youth is to prepare them to earn a livelihood and take their places as responsible members of society and loyal citizens of their community, their state and their country.

The teacher might be reminded that educable mentally retarded children resemble more than they differ from average, normal or usual children. Their basic needs are essentially the same, but different approaches often must be made to meet these needs. Although the curriculum for these children will emphasize the acquisition and use of basic tool subjects, caution must be exercised not to bring upon them pressure to achieve beyond their intellectual abilities. With these children, social competence, emotional development and occupational training are stressed to a greater extent than with regular class children.

Generally, the lower the intelligence of the child the less is his ability to grasp abstract concepts. It therefore behooves the teacher of educable mentally retarded children to devise and use a profusion of concrete materials and examples in teaching.

The general objectives of teaching educable mentally retarded children and youth will not vary appreciably from those of teaching other children. These might be summarized as follows: to enable the pupil to become, as nearly as possible, personally adequate in the areas of social, emotional, spiritual and economic growth and development. Some more specific objectives might be to help the pupil to:

—acquire, to the extent of his ability, mastery of the fundamental skills and the tool subjects

—discover, understand and develop his abilities, potentialities and aptitudes

—understand and accept his limitations and develop a comfortable self-concept

—acquire and cultivate good habits of personal and mental health and hygiene

—learn ways of using leisure time wisely

—develop a healthy curiosity

—cultivate habits of responsibility, trustworthiness, honesty, truthfulness and reliability

—acquire good work habits

—develop good moral character

—build self-confidence through activities in which he can both experience success and strengthen frustration tolerance

—equip himself to the best of his ability for vocational or occupational competence so he may engage in gainful employment

With the beginning of special classes for mentally retarded children and youth, attempts were made to adapt the grade system used with normal children to the levels of instruction for the retarded. Although this practice has generally prevailed over the past several years it has not proved suitable for grading these pupils. The Mississippi program has attempted to employ instead a series of five levels of instruction for mentally retarded pupils throughout their entire public school experience from their earliest admission at six years of age to the senior high school age level. The following comments taken from the Mississippi Curriculum Guide[1] should be helpful in properly identifying the projects included in this bulletin as to levels of instruction on which they are to be used.

Level I

This level is for the child who is not yet able to do reading, writing, arithmetic or other activities usually considered basic tool subjects. He is hardly ready to conform to the rigidity of a formal teaching situation and must be allowed more permissiveness than a regular classroom usually tolerates. This might be called a readiness period as the activities will consist mostly of games, music, and other informal procedures designed to develop simple concepts and general maturity.

Level II

Children of this level have passed through or achieved Level I and are now mentally mature enough to begin the basic principles of reading and number work, although more emphasis is placed on reading. They are allowed to progress, without pressure, as they are able, with much attention still given to social and emotional development.

Level III

Pupils who reach this level should have already established a background of academic work and now be ready for reading with understanding, writing, spelling and for learning the basic concepts of arithmetic. Attention is also given to their relationships to the home, the school and the community. Health and safety can now be stressed with demonstration and practice. It is in this level that the pupil usually makes his greatest progress in the academic subjects.

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[1] Mississippi Bulletin No. 152, April, 1962. **A Curriculum Guide for Teaching Exceptional Children,** Volume One-EMR. Division of Instruction, State Department of Education, Jackson, Mississippi.

Level IV

It is at this level that the pupil should be introduced to various occupations or vocations. Although progress in academic subjects should continue until the pupil's maximum potential is reached, vocational preparation as such begins to share his attention. It is here that the Division of Vocational Rehabilitation may be invited to assist with the vocational diagnosis and prognosis of the pupil.

Level V

When a pupil has completed Level IV and reached the age of 16 years, he is ready for Level V. This level consists mainly of vocational or occupational training with continuation of those auxiliary areas of instruction that contribute to successful work experience. This training may be part-time work and part-time school, full-time apprenticeship, vocational school work, or full-time training as a client under the Division of Vocational Rehabilitation. On successful placement in employment the pupil may be graduated and given a certificate or diploma.

The Place of Arts and Crafts in the Curriculum

The hands are not to be trained at the expense and neglect of the mind, but the training of one should become an integral part of the training of the other. Arts and crafts are not taught merely to keep the pupils busy, or to acquaint them with the many and varied media and techniques; but the skills acquired are to be utilized and projected into a program of pleasurable interrelated activities culminating in happy, well adjusted and self-sufficient personalities. A good arts and crafts program should help greatly in the formation of attitudes and educational objectives that would enable the child to meet social situations that he will encounter throughout his life.

Happiness is essential to children with retarded mental abilities. While these children are deficient in academic ability for learning, they are not necessarily deficient in many other human qualities. They are, however, usually in great need of guidance for social adjustment.

To meet the needs and limitations of the educable mentally retarded child, projects should be so planned that they will fall into a pattern of learning. A good teacher starts with the individual at the level of his experience and ability and leads him on to new adventures, skills and understanding of beauty. He does not try to make a professional artist of the learner, but attempts only to bring him to a normal level of his ability. By providing concrete and meaningful experiences, arts and crafts may lead to better retention in areas of academic learning.

Handwork projects should be set up in order to meet the needs, interests, and limitations of each educable mentally retarded child. Concrete and "doing" projects are necessary to enrich the educable mentally retarded child's learning experiences. Criticism of the pupil's work should be constructive, offering ideas and methods of procedure that make the work easier, whether it is in drawing, copying, or creating. Appreciation for effort must be shown, and deserved praise and encouragement should be given the child for his achievement.

Successful completion of even the simplest project tends to give confidence and courage to carry on—to try new fields. If projects selected enable the child to achieve fairly continuous success, his ability and confidence will likely grow in proportion to his achievements.

The educable mentally retarded child should be helped to accept himself, with his abilities and limitations, and to realize that good citizenship and the capacity for friendship and cooperation are within the reach of everyone. The arts and crafts program through the experiences acquired, knowledge gained, and skills learned should help develop good habits of patience, orderliness and good housekeeping, and the ability to get along with oneself as well as with others.

In a purposeful and effective program for educable mentally retarded children, arts and crafts projects help meet each child's needs and broaden his horizons. With some children this is a slow process; with others progress is more rapid; but in most cases the results are rewarding.

The cultivation of a desire to make useful objects and to create things that are of intrinsic value is one of the aims of arts and crafts. As the child becomes more adept, his desire for accuracy and neatness grows. The arts and crafts program should have a far-reaching impact on training for eventual occupational and vocational placement.

A valuable by-product of a good arts and crafts program is the improvement of parental attitudes through the demonstration of success by their children. A happy and well adjusted child tends to make a happy parent.

Occasionally, a mentally retarded child shows marked potential for creativity. Many authorities agree that almost all mentally retarded children have some capacity for developing creativity. Through arts and crafts each child can be encouraged and stimulated to develop this important area of learning.

The Need for Recognition

The mentally retarded child, as well as the normal child, searches for recognition. The satisfaction of ego, which all must have, is intensified with the educable mentally retarded child because he receives so little recognition. Arts and crafts may adequately fill this particular need.

Mere pride in self achievement is often not enough to satisfy this craving for recognition; therefore, a more concrete reward should be offered. This reward may not necessarily be tangible, but it should be in such a form as to give public recognition for a job well done. This can be accomplished in many ways—public exhibits for PTA's, Associations for Retarded Children, community clubs and organizations, church groups and exhibits or programs for the other students. There is special gratification in being admired by fellow classmates. This may be achieved by making decorations for school events and special occasions, hallway exhibits, chapel programs, bulletin boards and classroom door decorations. One excellent idea is a "Craft of the Week" display. A small table may be placed outside the classroom door and a special example of current craft activities put on display. The teacher should see that each child shares in these experiences.

Many items may be quite excellent in craftsmanship and design and therefore saleable. Although some schools may have a policy against merchandising through the school system, students might sell these objects through club bazaars, private merchants and hobby shops. Recognition should never be confused with exploitation.

The Development of Good Work Habits

A good arts and crafts program can help mentally retarded pupils form and cultivate good habits of work. Because of a short attention span it is usually difficult for these boys and girls to persevere in a task that proves difficult for them. Arts and crafts projects encourage them to stay with a job until it is finished.

Neatness and order are necessary components of instruction for all children but are unusually important for retarded children. These traits can be strengthened by teaching the pupils to be neat in their work and by having them take turns tidying up the room after each day's activities.

One characteristic of a good workman is the ability to follow directions. While following directions is more difficult for retarded children than for other children, it can be taught and improved.

Actual work activities are seldom experienced in isolation but rather in a team or group setting. It is therefore of vital importance that the pupils learn to perform as members of a team or group and share the responsibilities involved.

It is necessary that the teacher be always on the alert to teach the proper utilization of time. With the slowness of the mentally retarded child to acquire academic knowledge he may be tempted to drift into purposeless activities that not only allow but teach wastefulness of time. Closely akin to the proper utilization of time is the conservation of materials and resources. Nothing usable or useful should be discarded or destroyed by the teacher or the pupil.

Although discussed further under vocational implications of an arts and crafts program, the careful cleaning of tools and storing them in their proper places would be considered a good work habit.

The Relationship of Arts and Crafts to Mental Health

Many mentally retarded children and youth have experienced failure so frequently they have developed emotional problems to a greater extent and severity than most non-retarded persons. Although it is not here claimed that a program of arts and crafts will in itself solve such problems, it is felt that such activities have definite therapeutic value and can help prevent the development of many emotional difficulties.

Probably the lowest state of mind to which a human being can sink is that of complete lack of self-importance. A vital part of the human personality is the ego, without which a person has little foundation on which to build. Once a retarded pupil learns there are worthwhile things he can do to elicit praise from his teacher, his parents and his peers, he begins to feel that he is of some worth and becomes interested in improving himself. Any program in the public school should give every child an opportunity to succeed in something, and arts and crafts help provide that opportunity. In the activities of a special education class the pupil must develop some degree of self-reliance, which can be done by his taking the responsibility of a project requiring some independent work or activities. Here he learns something of his abilities and limitations, where he is encouraged to develop the former and accept the latter. The old adage, "Success breeds success," holds true in working with retarded pupils. As they taste for the first time the satisfaction of success, they tend to be motivated to greater achievement. Probably no achievement is more rewarding than the satisfaction of creating something. Every pupil should have an opportunity and be encouraged to do with his own hands a complete job, though it may be a simple one.

As the pupil shares plans for a project and becomes involved in its activities he finds his interest stimulated and his curiosity of the world around him aroused, both of which are necessary for learning. There is only a short step from this stage of learning to appreciation of beauty around him and the development of his aesthetic sense.

Not the least of the benefits of an arts and crafts program is the provision of a channel for the outlet of tensions and frustrations. While a child is hammering, cutting, building, painting or creating under happy conditions, with a useful, definite purpose, he tends to relax and tension is thereby reduced. The pupil should be given an apportunity to express himself through arts and crafts media. The teacher might be reminded not to be too directive in what he is to make or do but let him select from approved projects or activities the things that appeal to his interest. Although most projects will have definite correlation with the tool subjects, the value of activities for the release of tension must not be overlooked. They may need to be utilized when it becomes evident that the pupil is in need of release from the pressure of academic or other stringent tasks.

Many persons are unhappy and dissatisfied because they have never learned to use leisure time to its best and most satisfying advantage. Arts and crafts provide a wise use of leisure time.

The Correlation of Arts and Crafts with the Academic Curriculum

An arts and crafts program must be well planned, organized and correlated with the entire curriculum provided for the retarded child. Such subjects as language arts, reading, arithmetic, spelling, social studies, health, science and writing can be greatly enhanced with the proper application of arts and crafts. It is felt that the proper utilization of arts and crafts is not to set it aside as a separate subject but to include it throughout the entire curriculum as often as needed. At times it may be appropriate to spend much of the day on a specific arts and crafts project which is proving profitable to the pupils. There may be other times when arts and crafts as such have no part in the day's activities.

The child learns to organize his thoughts, ideas, feelings, and actions while expressing himself through various media. His skill in language arts grows as the child tells about his product and shares with others. Arts and crafts experiences which are related to subject matter give greater opportunities for each child to take part in activities that are meaningful to him.

Reading comprehension can be broadened through modeling story characters and drawing pictures or sketches to illustrate stories.

Before the child can learn to write he must develop motor control and the ability to coordinate mind, eye and hand. Dexterity is often improved through shaping, drawing, coloring, cutting, and pasting.

Many meaningful arithmetical concepts may be learned and developed as the child measures, counts, draws shapes and forms, writes numbers, and figures costs of materials and margins of profit.

As the child makes family characters, homes, pictures of the community and shares these with others, social studies become a living reality.

Arts and crafts provide almost endless opportunities for the study of nature. Producing pictures of things in nature, preserving flowers and plants, studying media used and the many different types of collections are but a few examples of nature study in arts and crafts projects.

The Vocational Implications of Arts and Crafts

Arts and crafts are usually done to provide pleasure, relaxation, and a sense of achievement, and to serve as a catalyst in the academic and social areas of life. They also enhance many developmental learning situations. These practiced skills have definite value when carried over into a work situation whether in the home, occupation, self employment or in industry.

The care of equipment is of great importance. In the applied teaching of arts and crafts, pupils should be impressed with the importance of taking care of materials and tools.

The pupil should be taught the necessity of planning his work before it is actually begun and arranging his arts and crafts materials in an orderly way to best utilize time and energy. He should acquire the impression that an orderly work procedure is highly desirable in an occupational setting.

Accuracy and application are desirable traits which should be stressed in the teaching of arts and crafts. One way to teach the pupil to be more accurate is to use drafting instruments.

One beneficial application of crafts to useful life situations is the ability to learn the names and uses of various tools and materials. The media used in arts and crafts classes relate to useful objects and occupations. Learning correct procedure for buying, measuring, cutting and finishing wood has a positive relationship to woodworking as a vocation. The same is true of leather craft, metal craft, textiles, mosaics, and many other projects used in special education classes.

Skills that are learned in the actual operation and manipulation of power tools are invaluable to the pupil who goes into industry. Learning to observe and practice the rules established in the use of power equipment helps to teach the pupil the value of personal and group safety.

Crafts help the pupil develop the ability to select, sort and group objects. They develop discrimination, observation and the power of choice. They encourage the pupil to make choices independently of the teacher and others.

Projects in arts and crafts tend to make the participant aware of the time factor. Slow work is not encouraged, neither is the wasting of time; however, speed to the detriment of one's best effort is never encouraged. They stress the importance of completing a task once is it begun.

Hands that have developed dexterity in manipulating and organizing material in one field can more easily be taught to manipulate accurately in another field.

A varied arts and crafts program offers enough carryover into vocations that the skills developed in certain areas may be a leading factor in determining the type of work the pupil is best suited to do.

Tips for an Effective Arts and Crafts Program

1. Be purposeful—never make things just to occupy the pupil's time or to give him "busy work."

2. Use indigenous materials. A wealth of useful materials goes to the scrap heap every day.

3. Generally, avoid craft kits. This is usually just an easy way out for the teacher and pupils and limits the teaching or training value of the project.

4. Arouse the creativity of the pupil through the activities used. Encourage him to use some of his own ideas.

5. Make the arts and crafts program complement the other phases of the curriculum.

6. See that the activities bring satisfaction rather than frustration to the individual.

7. Make the projects fun.

8. Always try the activity before attempting to teach it to the pupils.

9. Reward the pupil for good work. This may be done by a smile, a pat on the back, a word of praise or allowing the product to become his own property.

10. Be sure that tools and equipment are cared for properly.

Qualities of the Arts and Crafts Teacher

1. Enthusiastic but not effusive.

2. Knowledge of the project or activity.

3. Flexibility—willingness to adapt his plans to the interests and needs of the pupils.

4. A sense of humor—not afraid to laugh with the group.

5. Sensitivity to the needs, problems and interests of the pupils.

6. Resourceful—able to manage for materials and equipment even with limited finances.

CHAPTER II

ARTS AND CRAFTS PROJECTS

Basketry

1. Pine Needle Basket

Materials: 1 grits box (round shaped), 2 wide rubber bands, 1 spool #8 black thread, 1000 long pine needles, 1 can gold bronze, 1 can shellac, 3 pine burrs, 16 pine needles for braid, 12 pine needles for handle

Remove the top from the box. Place one rubber band at the top of the box, the other 5 in. from the top to hold the needles evenly around the box. Place the pine needles evenly around the top of the box, using at the top of the box the part that grew on the pine. Plait 16 pine needles and braid around the top of the basket underneath the ends of the pine needles. Use sewing needle and black thread to tack the braid of pine needles around the top of the box. Make another braid exactly like the first one and sew over bottom rubber band making needles as even as possible. Use one coat of gold bronze tint over the pine needles. When this is dry, shellac entire basket. Use 12 needles to make the handle for hanging. Wrap them with the #8 thread. Sew the ends to the end of the basket.

2. Simple Basket

Materials: #4 reed for stakes and #2 reed for weaving, a wooden base for the basket bottom. It is easier to start with a round base. These may be bought precut with a reed from handcraft supply companies. Where plywood is available, the bases may be cut and holes the size of the stakes drilled ¾ of an in. from the edge and ¾ of an in. apart. (See figure 1.)

Cut a stake for each hole from #4 reed 14 in. long. Wet both stakes and weaving reed and allow to set for a few minutes. Insert a stake from upper side to underside. Let ends extend 2½ in. on underside. Turn basket over. Begin with any stake (1). Bring it to you and in front of stake (2) at right and behind stake (3). (See figures 2 and 3.) Continue around base in the same manner locking each stake. Let the ends point inwards.

Take a piece of reed about 3 yds. long and double, not having the ends even. Place the loop over any stake holding both ends on the outside. (Figure 4.) Take the piece nearest you and place it over the next stake and bring it out again. (See figure 5.) Continue to take the reed nearest you and place it over the right stake until the reed it used. This is called pairing.

Use the left forefinger to hold the reed down while working with the right hand. To add a piece of reed when it is needed, tuck the new piece in behind and alongside a stake to hide. Continue without changing the pattern.

Keep the stakes from closing in by placing a circle the size of the bottom inside the stakes while working a few rounds. Weight the circle so it will stay in place. This will tend to spread the stakes slightly.

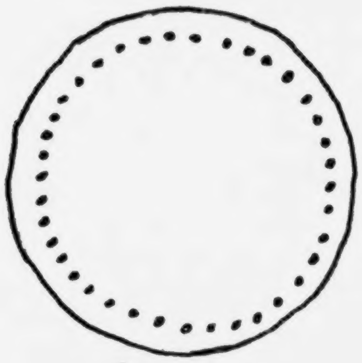


fig. 1

Bottom or base of basket

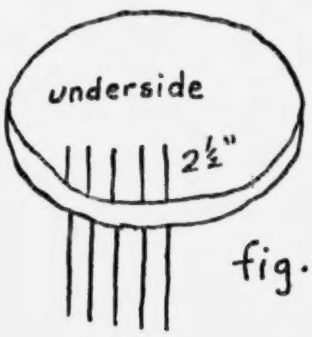

underside
2½"

fig. 2

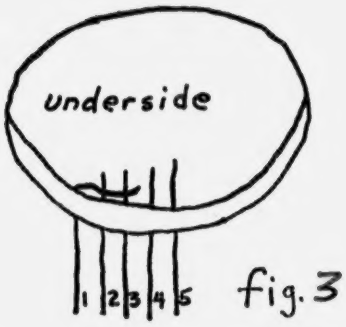

underside
1
2
3
4
5

fig. 3

(1) No. 1 in front of No. 2
and behind No. 3

(2) No 2 in front of No. 3
and behind No. 4

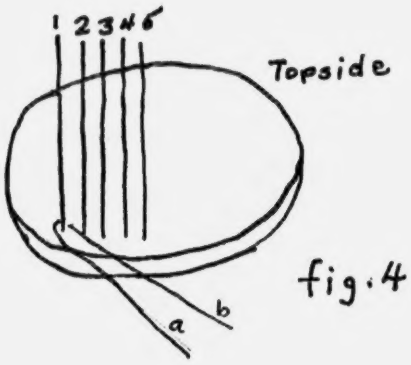

1 2 3 4 6
Topside
a
b

fig. 4

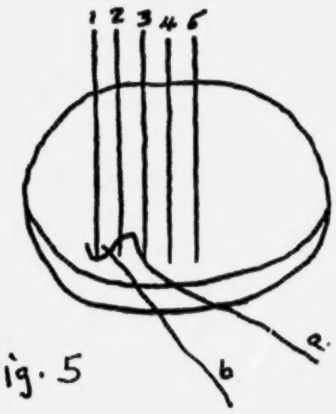


fig. 5

Take reed nearest
you (a) place over
reed 2. Reed b is
then nearest you.

Work basket about 6 in. high. Measure stakes evenly and cut on a slant. Begin with any stake. Pass it in front of two stakes and place it along side the third stake and down about 2 in. Continue around basket until the top is completed.

Things to Remember:

(1) Work reed while it is wet or it will break. Dampen while working, if necessary, with wet cloth or sponge. When work is put away incomplete, it must be wet thoroughly before work can be resumed.

(2) Work on the side nearest you and keep the work close and firm.

(3) Do not wet the base since it may warp or crack.

(4) Do not use reed that is too long. (3 yds. is a good length.)

(5) Store reed over pegs or nails away from heat so it will be straight and not brittle.

Beadcraft

3. Bead Bracelet

Materials: wire pliers, beads of different colors and three wraps of spring wire bought for bracelet craft

Make a loop in the end of the wire with pliers, string beads and make a loop at the other end of the wire.

4. Macaroni Craft

Materials: large macaroni, vegetable coloring (leftover egg dye is good), paper clip for stringing, rubber bands for bracelets, glue and safety pin for pins.

Loop string through paper clip and string for a necklace. For a bracelet, select one or more rubber bands to fit around the wrist. String the macaroni on the rubber band and tie ends together with string or ribbon. For a pin, use a safety pin about 1 in. long. Pin it through a piece of cloth ½ x 2 in. long. Glue this to a like size piece of tagboard or similar material. Use the cardboard as a base on which to glue the macaroni. The pin will be on the back.

To dye macaroni, put coloring in hot water and drop macaroni in. Do not leave macaroni in the water too long. Remove, separate and dry well. Suggestions: Macaroni can be used to outline pictures. See drinking straw project (113). It is a good media to use for picture framing. It takes well any type of paint with spray or brush.

Glass

5. Bubble Bath Gift

Materials: small pretty bottle or jar, a tiny picture, sequins or stars, a scrap of ribbon, beads, etc.

Fill the container with bubble bath or bath salts, decorate simply and tie a ribbon around the neck of the bottle.

6. Button Bottle

Materials: 1 Good Seasons salad dressing bottle, rug or wool yarn, small black buttons for eyes, metal stripping for tail, paper cup just large enough to fit over bottle (could make your own)

Spread glue over bottle up to small of neck. Wind yarn evenly around the bottle being careful to cover bottle completely. Make four pom-poms by winding yarn around fingers, then tying them in the middle and cutting the ends to the desired length. Fluff them up and glue on to front of bottle for the paws. Cover metal strip with glue and wind yarn around it to within 1½ in. from end. Add pom-pom for tip of tail and glue uncovered metal end to bottom of bottle. Bend tail upward when glue dries. For the head cover the cup with glue and wind yarn around it until completely covered, bottom and all. Make fringe around bottom of cup before winding the yarn. Cover small bit of kleenex with yarn for nose and sew on to cup. Add two black buttons for eyes and three pompoms around top for hair. Plait yarn and tie around cup just above fringe. Now put cup over neck of bottle for head. This is more colorful if two different colors are used for body and pom-poms.

7. Coaster Picture

Materials: glass furniture coasters or ash trays, small individual pictures of each child, blotter paper, paste and scissors (or scotch tape)
The picture is centered on the bottom of the coaster and secured with scotch tape. The piece of blotter, cut the same size as the bottom of the coaster, is then pasted over the picture.

8. Decorating China or Glass

Materials: bottles, jars, glasses, plates, glass paint, designs, cellophane or masking tape, paint brush

Select object to decorate and an appropriate design. On a thin paper sketch the design to be painted. Color this sketch with crayons or water color as a guide for applying the glass paint.

Slip a piece of tracing paper under your sketch and attach both sketch and tracing paper to the object with tape. With a hard pencil trace the design on the glass object. Remove the tape and the papers. The design will appear clear and sharp on the glass surface. Paint the design with Dek All paint. Allow to dry overnight. To make the design extra permanent, bake the object in an ordinary oven 300° for 15 min. Put the article in the oven before heating and let it cool thoroughly before it is removed from the oven.

9. Glass Etching

Materials: stencil paper, special gummed stencil foil or any heavy waxed paper such as the liner from a box of jello or the back sheet of paper from a duplicating stencil, paraffin, small paint brush, toothpicks, razor blades, a clean can, saucepan, hot plate, glass articles to be etched and etching cream

Draw a pattern of the design to be etched on the stencil paper. Cut out the design with a razor blade or a stencil knife, making sure that there are no ragged or fuzzy edges on the stencil. Heat the paraffin in a clean disposable can that has been placed in a saucepan of boiling water. Use the brush to "paint" on a thin even covering of wax to the glass being etched. Secure the stencil with tape to the section of glass that has been wax coated. With a toothpick remove all the wax coating from the design, making sure that all the wax is out of the corners. Remove the stencil and apply etching cream to the clean area that forms the design. Consult directions on the etching cream as to length of time it is to stay on the glass before it is washed with water to remove.
If the special gummed foil is used the design can be put on the gummed foil. Cut out the design, heat the stencil slightly against a warm light bulb and adhere to glass. Apply etching cream to open area of stencil, allow to stay on as long as directed and wash with water, then remove stencil.

10. Glass Painting

Materials: a piece of glass pane, a paint brush, enamel paint in several colors, and cardboard. (The glass is obtained from a glass company and the other materials mentioned may be on hand at school.)

Draw a picture on a piece of glass pane. Paint the picture. When the picture is dry, back it with colored cardboard and place in a frame.

11. Light Bulb Rattle (Maracas)

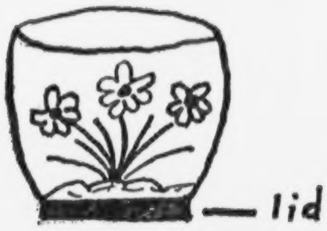
Materials: old light bulbs, paper maché (See recipe on p. 93, tempera paint or paste and pictures

Cover the light bulb with several layers of maché. Allow to dry, then paint and decorate with pictures. More advanced students can paint bright designs with water color and shellac. When the object is dried, break the glass inside by hitting it firmly against a hard surface. This provides the rattle.

12. Paper Weight

Materials: small size baby food jar, modeling clay and small artificial flowers. (Money can be saved if long stemmed flowers are bought with many buds on it.)

Check to see that the jar is clean. Remove the lid. Place a small amount of clay in the top of the lid. The flowers are arranged in the clay. Three to five flowers are enough. Place the jar over the arranged flowers and screw on the lid.



13. Vase

Materials: any attractive jar or glass, water base paint, pictures. Paint the container and allow it to dry. Pictures may be added if desired.

Leatherwork

14. Billfold

Materials: piece of leather 4 in. by 8 in., 2 yds. leather lacing, cardboard, hole punch or ice pick, large needle, blunt tool or crochet hook, 1 button.

Trace outline of wallet from pattern on to light weight cardboard and cut out. Lay the piece of cowhide (face down) on a smooth board and place the cardboard pattern on the surface of cowhide. Trace around the edge with a soft pencil. Make two tracings. Cut away the extra leather. Pierce holes all around the wallet. Follow **carefully** the pattern in punching the holes through the leather and cardboard. Trace the design on cowhide, then tool the design into the leather with a pointed blunt tool (such as a small crochet hook), or paint the design with a small brush with lacquer or enamel.

Begin to lace the edges at the open or top side of the wallet. Use a darning needle with very large eye with the leather lacing. Employ the over and under stitch. Repeat the same lacing process on all four sides. Glue the end of lacing down on the inside.

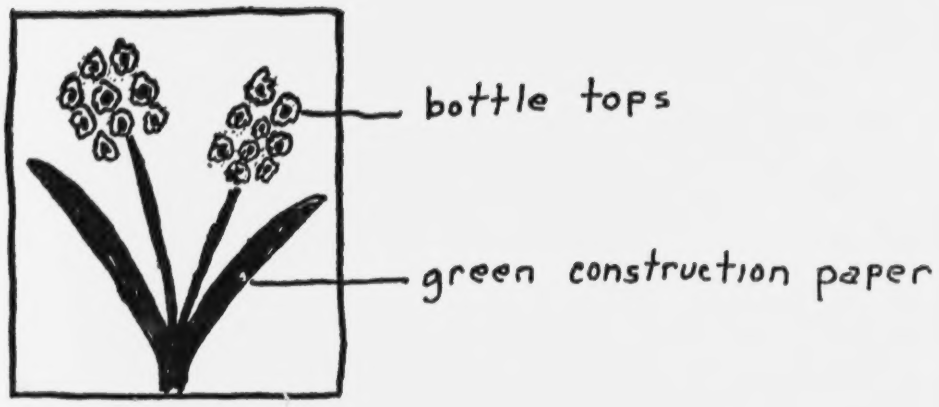
Stitch or glue tab in position. Sew on button.

Metalcraft

15. Bottle Top Bouquet

Materials: bottle tops, tempera paint, glue, scissors, construction paper, cardboard

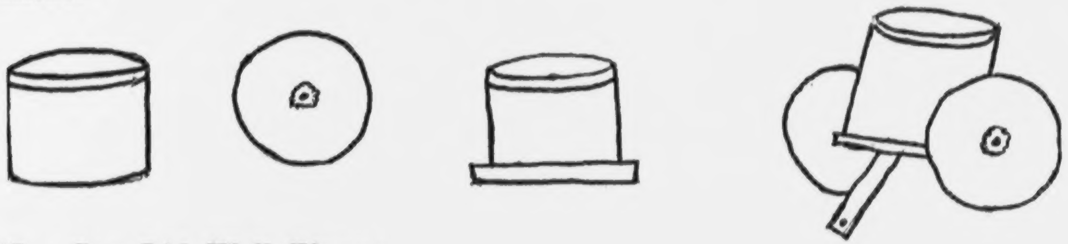
Paint the inside cork of the bottle tops bright colors to resemble flowers. Apply glue to the metal backs and place the bottle tops on heavy cardboard or construction paper. Arrange them in the shapes of flowers. Cut green paper leaves and stems from construction paper. Paste them on in the proper relation to the flowers being used.



16. Can and Lid Planter

Materials: a one-pound coffee can or any can not too tall (It is best if the can is round), two lids of equal size to the coffee can lid, two bottle tops, two wooden strips (one short, one long), three small nails, and paint

Nail the short piece of wood, which should be cut to the length of the can's diameter, to the bottom of the coffee can. Nail the two other lids as wheels to the short piece of wood. Place the bottle tops in the center of the two wheels and nail for hub caps. The long strip of wood should be measured twice as long as the short strip and nailed as a tongue centering it on the axle. Paint the cart and pot a small plant inside.



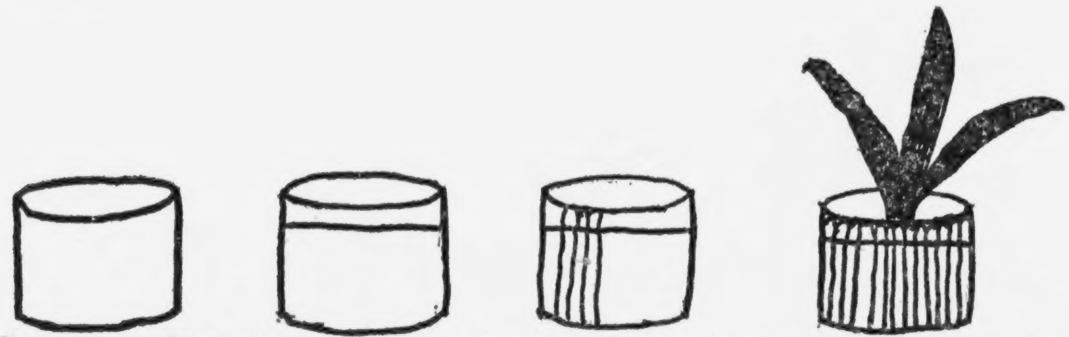
17. Can Lid Wall Plaque

Materials: coffee can or shortening can lids (without embossed figures or letters), masking tape, paper clips, pictures from magazines or artificial flowers or fruit, glue, scissors and water or rubber base paint
Paint the can lid. When it is dry, paste a picture on it. If fruit or flowers are used they can be glued on. When the picture is used, take a six penny nail and outline the picture lightly with nail holes. Use masking tape and attach a paper clip for hanging.

18. Clothespin Planter

Materials: a pound coffee can (or any can which has a depth the same as the clothespins), clothespins with springs (the number needed depends on the size of the can), rubber band, small easily bent wire, glue, shellac, varnish and a brush

Take apart enough clothespins to encircle the can. Put glue on the coffee can and a rubber band around it. The clothespins are placed close together around the can using the rubber band as a base line. Be sure the pins are placed with the flat ends down. When the pins are completely glued around the can, the wire is wrapped around the top and bottom of the pins in the grooves and tightened. The planter is now ready to be shellaced or varnished. Place a small plant in the new planter.

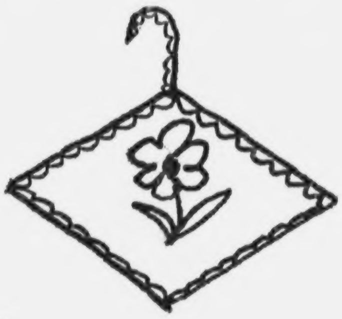


Suggested Variations: Use felt and glitter to decorate the cans, or sawdust may be used.

19. Coat Hanger Picture

Materials: a wire coat hanger, 15¾ in. square of material (linen, plastic, felt, velvet or upholstery scraps), a picture or design cut from material, 5 yds. of yarn of contrasting color, glue, scissors, large needle

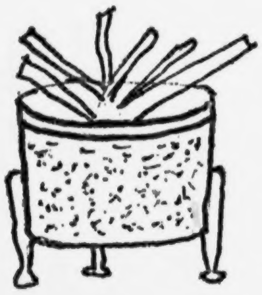
Bend a coat hanger into a diamond shape. Stretch the 15¾ in. square over the hanger and pin. Allow ¾ in. to be folded over the wire and trim away surplus material. Use the large needle and yarn to make a blanket stitch all around the edges. Wrap the neck of the hanger with yarn and tie a small bow at the base of the neck. Apply the picture or design to the front of the hanger with needle and thread or glue. Hang on wall for decoration.



20. Coffee Can Planters

Materials: 1 pound coffee can (5 in. tall) or similar size can, 3 clothespins (not the clip-on type), elbow macaroni, rice, Elmer's glue, gold or brass spray-on paint

Saw off one leg of the 3 clothespins, glue around can equidistance apart with the knob end down and the flat side of the remaining leg next to the can. When the legs are firmly set, spread glue down about ½ in. from the top of the can. Arrange elbow macaroni to form a border around the top. Spread glue over 1/3 of the can (between legs) and cover with rice. Let set. Then finish the other 2/3 in the same way. Shake off any surplus rice. Spray inside and outside of planter with gold or brass paint.



21. Copper Enameling

Materials: kiln, kit enamels (80 mesh) in assorted colors, taranganthe gum solution, copper cleaner, metal shears, solder, cuff link, earring and pin backing, tiny brushes, bulk copper of about 14-20 gage, metal file, soldering iron and clear lacquer. (The materials with the exception of a few which can be found at a hardware store must all be obtained from a craft dealer. The initial outlay is expensive, but the follow-up is not so expensive. Scrap copper can be ordered by the pound or copper may be bought by the running foot.)

Cut a paper pattern the shape of the item to be made and glue to a piece of copper. Cut the copper with metal shears and file the edges smooth. This product is called a blank. Clean blank with commercial pot cleaner recommended for copper (the acid recommended by dealers is not necessary and is dangerous). Wash and dry the blank being careful not to allow the fingers to touch the copper surface. Cover the blank with taranganthe gum, using a brush. With the fingers, lightly sprinkle on a background of glaze, working from the edges to the center. The glaze should be about 1/16 in. thick and cover evenly over the surface except for the edges where it should be slightly thicker. Designs can be made by sprinkling over the background.

Place the article into a preheated kiln, and cover. Watch carefully until the powdered glaze turns to liquid and the surface appears smooth and flat. If desired, the design may be scrolled on with a sharp tool while the glaze is in a liquid state in the kiln. Now remove from kiln and permit to cool on a heat resistant pad. When cool, file off the dark edges and scrape the back. Care should be taken to file away from the enameled surface rather than toward it so as not to break the enamel. Solder the appropriate fixture on back and clean with copper cleaner. Finish up by lacquering the exposed copper surfaces.

Details for more advanced and complex techniques are usually supplied with each kiln kit from the dealer.

22. Cymbals

Materials: 2 pie pans, 2 large buttons, paint, 2 spools, yarn or lanyard material

Punch two small holes at center of each pan. Place painted spool over the two holes on the inside of the pan and place the button over the spool. Run the yarn through the button and spool to the outside of the pan and tie securely.

23. Decorated Containers

Materials: gummed paper, metal boxes (or bottles) scissors and spray shellac

Cut out design from gummed paper. Stick on boxes or bottles and spray with shellac.

24. Drum

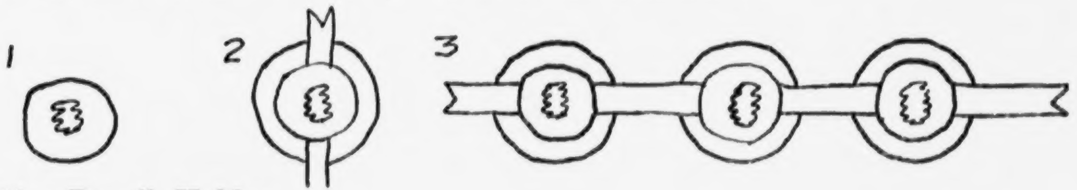
Materials: quart juice can, rubber inner tube, paint, yarn, cord, needle

Remove both ends of the can, leaving the inside smooth. Paint the can. Cut two circles from the inner tube approximately 2 in. larger in diameter than the top of the can. With the yarn and carpet needle, lace the rubber circles together with the can in between. Attach cord to hang.

25. Jar Lid Picture Plaque

Materials: ruler, scissors, paste, 3 two-piece jar lids, ribbon (approximately 18 in. long), pictures—actual or from magazines or other sources (Strips of heavy paper, cloth braid, or strips of cloth may be substituted for ribbon.)

Select and paste the pictures on the top of each lid insert. Apply the paste to the back of each lid insert. Pass the ribbon over the upper rim of the lid ring under the lid insert and over the bottom part of the ring. Repeat for ring number 2 and number 3. (This could be made a seasonal project by using appropriate seasonal pictures.)



26. Pencil Holder

Materials: a small fruit juice can, paint, decals or small pictures and glue

Paint the can and let it dry. Paste on pictures.

(Other sizes and types of cans can be used for different things, such as flower pots, by punching holes in the bottoms for flower containers, for canisters when the lids are also decorated, etc.)

27. Pot Lid Plaques

Materials: metal lids (from the dime store) with small loops for handles in the center of the lid, colored enamel and brush, small clusters of flowers, fruits or dried arrangement or small juice can, florist wire, glue

First, paint lids on bottom sides with enamel. Wire or glue selected objects to lids. If can is used, enamel can before wiring to lid. Fill with flowers or greenery.

28. Putty Flower Pot

Materials: coffee cans or similar ones, linseed oil, putty, oil paint and brushes

Paint the can with linseed oil. Allow it to dry. Spread putty over the sides and work the putty into rough textured design. Allow to dry and paint with oil paint.

29. Repousse' Copper Pictures

Materials: thin plywood, heavy copper foil, orange wood tools, old newspaper, copper cleaner, lacquer and plastic wood and flat black enamel (The copper and orange wood tools must be obtained from a craft supply house. The other materials can be found at any hardware store. For special colored effect, colored lacquering may be used.)

First, cut off enough copper foil to slightly more than cover the plywood to be decorated. Take the design which has been decided upon and place under the foil on a newspaper. Trace all lines of the design over the foil. Turn the foil upside down on a stack of old newspapers and begin to press the design downward with the orange wood tools. Do all complicated interior sections of the design first from the outside of the design work inward (use sharp or rounded tools) toward the center. When this is finished, turn the foil face up on a hard surface and use a flat tipped tool to work the background down against the hard table surface. Make sure all edges of the design are clear. Fill the deep section from the reverse side with plastic wood and permit to dry. When dry, glue entire piece to plywood and fold edges under. If this seems insecure, use tiny nails to hold it down. Clean, paint, and frame.

30. Rhythm Shaker

Materials: small tin box such as a Band Aid box, dried peas, beans, rocks or marbles, tape for securing top

Put a handful of peas, etc., in the box, tape the top on, decorate as desired with pictures or drawings.

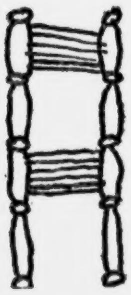
31. Safety Pin Jewelry

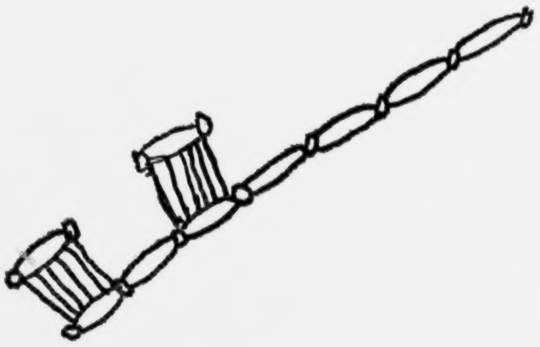
Materials: 140 small gold safety pins (70 for the necklace, 70 for the bracelet)

To make the necklace begin by joining 4 of the pins to form a chain (21 pins is completed chain). To make the 7 pendants run the point of 1 pin through the holes in the fronts of 6 closed pins. Run another pin through the other ends.

Attach the 7 pendants as alternate pins along the length of the chain. The first pendant will be the fifth pin, the last pendant the seventeenth pin, the remaining four pins to be joined to complete the chain.

To make the bracelet, make 7 pendants as for the necklace. Join the pendants on alternate pins, using two pins at one end of bracelet for a "clasp."





32. Tambourines

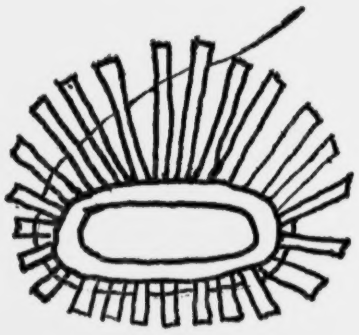
Materials: metal pie pans, bottle caps, yarn, paper fasteners

Remove the cork from the bottle caps. If paper fasteners are used, punch one hole in the center of each cap. Punch holes at regular intervals at outer edge of pie pan. Fasten caps with paper fasteners. Allow a small space between the pan and cap so the caps will rattle. If yarn is used to fasten, two holes will be needed in both caps and pie pan. Tie each cap in place loosely. Both pans and caps may be painted or pictures pasted in the bottom of the pan.

33. Tin Basket

Materials: coffee can, string, raffia, or crepe paper, wire cutters

Remove rim of a coffee can and cut an uneven number of strips around can from top to bottom. Bend strips out partially. Weave with string, raffia, or crepe paper beginning at the bottom and changing color to form designs. Bend ends of strips over last row of weaving, half to outside and half to inside.



Mobiles

Mobiles can fit into any special situation such as Easter or Christmas decorations. They can be made to resemble any shape or form for science or geography. They teach the children how to balance objects, and make them aware of contemporary art forms.

A wire or string should be put up across a corner of the room at the correct working height for the children. Objects are cut in various sizes from light weight material such as thin metals or cardboard. Light objects such as Christmas balls may, also, be used. Lengths of thin springy wire are cut. Objects are mounted on each end. Airplane cement will hold them to the wire. Use a thin wire or nylon thread to tie the various sections at different levels.

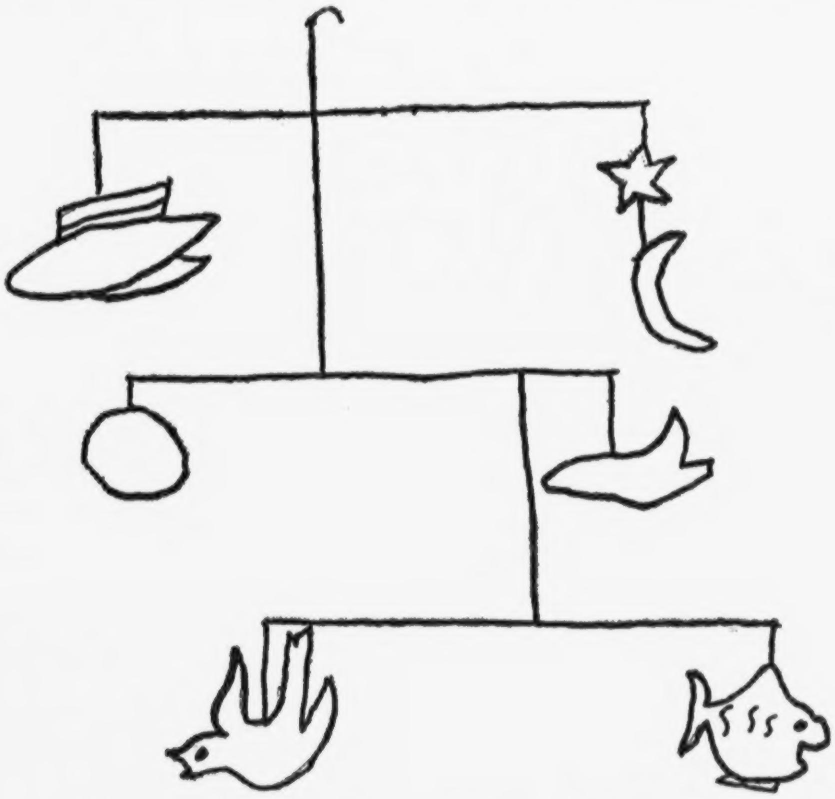
First, a mobile must move; and second, it must balance.

Cut out the objects in various sizes and shapes. The smallest forms go at the bottom of the mobile and the largest at the top. Balance two objects on a length of wire. Make another section with larger objects on each end. Make as many as necessary, then put the mobile together with each section suspended with the thread or wire at different levels. Work from the bottom to the top and remember that each section must hang in perfect balance. If the placement is good, each will turn fully without touching another.

34. Modern Mobile

Materials: coat hangers, wire cutters, tape, colored pieces of light weight cardboard, scissors, black thread, poster paint, hole punch

With wire cutters cut coat hangers or coat hanger wire into five different lengths. Wrap sharp ends with tape. Cut 11 pieces of black thread into various lengths. Attach pieces of thread to wire as shown in the picture. Wind thread around the wire several times before tying, so



thread won't slip. Trace the different designs onto light weight cardboard and cut each one out with the scissors. Paint in the details with poster paint. Punch a small hole at the top of each cutout and attach to the other end of thread. Hang the mobile from the ceiling or from a light fixture. If necessary, adjust thread and wire sections to make the mobile balance perfectly.

This same principle can be used in all mobiles.

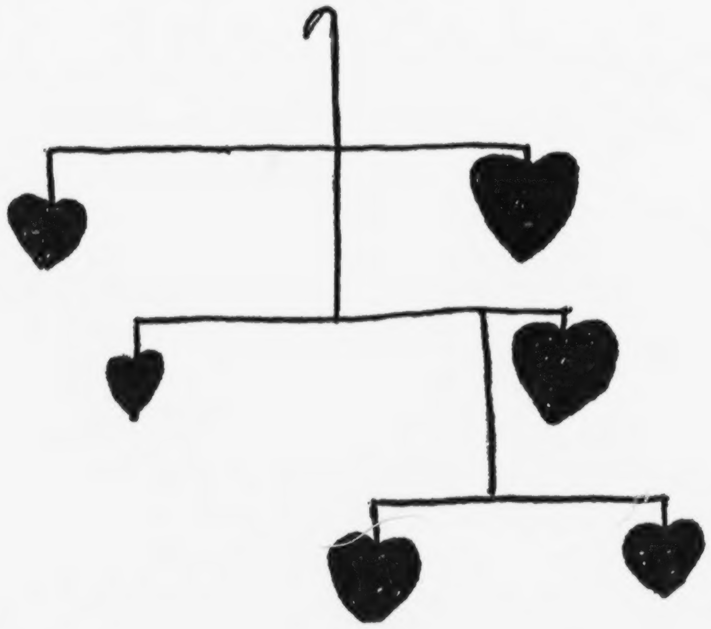
35. Seasonal Mobiles

Materials: light weight poster board, glue, glitter, sewing thread

For valentine decorations, use pink and red cardboard and cut shapes similar to those illustrated, and outline them with glue and sprinkle on silver glitter. Attach parts with white sewing thread so that they balance.

The same procedure is used for each holiday or season except various materials are substitutes.

Suggestions: Christmas card cutouts, valentine card cutouts, spring flowers of cardboard, various school objects, food cutouts, Halloween figures



Modeling

There are many sources for modeling materials. The commercial preparations tend to be expensive but may be the only solution for objects to be fired. In some localities, native clays can be obtained easily and for teaching clay modeling to younger children, these are satisfactory.

For projects where firing is not required, satisfactory substitutes for the modeling clay can be made from various media. Paper mache', sawdust, etc., may be used as media. Goop is good for reuse if kept airtight between usings. Goop tends to be pliable and more adaptable to use by weaker fingers. For flat surfaces and spreading (relief maps, oriental houses, etc.), a better material is stucco.(See recipes for modeling media.)

Modeling is ideal for spontaneous and creative work. Let each child have a lump of clay or similar medium and let him experiment with it to suit himself.

36. Animals (or other figures)

Materials: any form of modeling material available, a piece of oilcloth, vinyl cloth, floor covering or like surface

In free form modeling, the child is allowed to proceed at his own pleasure. If any instruction is given, each child is given a lump of clay and the teacher also takes one. They mold together, with the teacher giving directions as they mold.

37. Ash Tray

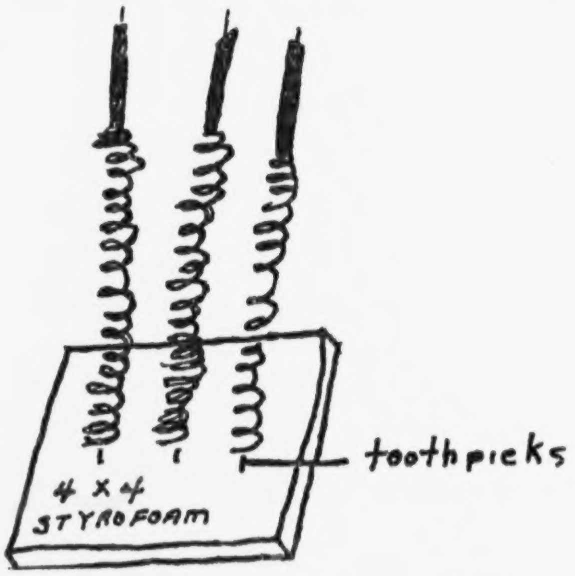
Materials: commercial hardening clay or native clay

Have ash trays of different shapes and sizes so that the children will get an idea of what to do. Do not hinder originality by making specific suggestions. Children mold trays, allow them to dry, paint them, and if they desire, the trays can be oven baked or sun baked.

38. Candle Arrangement

Materials: toothpicks, candles, goop (recipe on page 92), knife, coloring, rolling pin, styrofoam

Cut a piece of styrofoam 4 in. by 4 in. Roll out a piece of goop the size of the styrofoam and cover it. Braid or plait three long strips of goop



rolled out to the desired length. Fit three candles in the top of each strip in order to form a hole in each strip to fit candles. Remove candles and put toothpicks in the bottoms of the strips. Stick them in the foam and goop stand. Lay it flat to dry for 36 hrs. Apply three coats of shellac. Allow it to dry after each coat. Stand the goop frame and place candles (preferably colored) in top of each coil.

39. Easter Egg

Materials: 1 balloon (desired size and shape for egg), wheat paste and water, strips of news print or paper, pan, flowers, toy rabbit, Easter eggs, tempera paint, shellac, Easter grass, floral clay

Blow up the balloon to the desired shape, tie the end. Draw an irregular outline for the shape of a cracked egg on the balloon (large enough to hold the floral arrangement) 6 in. by 4 in. Cover the remainder, beginning at the edges of the drawn shape, with 8 or 10 layers of paper maché. Let this dry thoroughly. Cut the tied end of the balloon and remove. Close this opened end with layers of paper maché. Let dry. Color with tempera paint. Shellac. Use weights, if necessary, to give balance. Place floral clay or similar substance in egg. Arrange flowers, Easter rabbit, Easter eggs and Easter straw.

40. Goop Ornaments

Materials: magic modeling goop (see p. 92 for recipe), wire, cookie cutters, glitter, rolling pin, green paper (gummed is good), glue and shellac

Roll out the goop with small rolling pin. Cut out figures with cookie cutters. A small hole should be punched with a toothpick at the top of each figure before it hardens. Dry for at least 36 hrs. Paint on three coats of shellac. Decorate with glitter or finger nail polish.

Suggestions: Vegetable coloring may be used to color the goop. It can be rolled, cut, molded or woven. Flowers can be made by molding petals and putting them together. Add wire stem before drying.

41. Indian Pottery

Materials: Mexican pottery (powdered or moist), paints, shellac, sandpaper, enamel paints (If enamel paints are used, do not use shellac.)

Before the actual process of making clay pottery, study about the different things the class can make—pin trays, ash trays, buttons, boxes, etc. Practice the use of the modeling clay to get the feel of it. Impress on the children the fact that the shape of the object cannot be changed at will as in modeling clay.

Using a small piece of clay (less than 6 in. in diameter), shape the clay carefully into desired shape. Let dry thoroughly (about 2 days). Use sandpaper to smooth rough places. Paint. If paint other than enamel is used, allow to dry thoroughly before using shellac.

42. Paper Maché Bowl

Materials: paper maché (see p. 93 for recipe), bowl for form, some form of oil

Oil the bowl on the outside. Turn the bowl upside down for work. Cover the bowl with four or five layers of maché (If newspaper and wrapping paper are alternated, children can see when they have completed a layer). Allow it to dry, then trim the excess edge off. Remove the bowl and paint with tempera. The teacher may shellac for durability.

43. Pencil Holder

Materials: clay and pencils

Roll clay in the hands until soft and then roll into a ball. Flatten the ball on two sides. Roll the clay on the table until the ball is smooth around. Punch holes with a pencil in the flat side to be used as the top. Allow the clay to harden, and paint the desired color. When the holder is dry, place pencils in the holes.

Suggestions for other holders: A crayon or pencil box may be made from an empty Band-aid box. Be sure it is clean and dry. Paint the outside with red nail polish. While the box is still sticky, write name on top with a pin or pencil. Cut a picture out of an old magazine and stick it on the front of the box.

44. Plaster Molding

Materials: Plaster of Paris or other molding plaster, molds (may be ordered from craft supply house), cellophane tape, cardboard, coffee can for mixing, paints and shellac, brushes

Cut a hole in a piece of cardboard large enough for the top part of the mold to slip through. This does not apply to flat molds which may lie on the table. Fill the mold with water and pour it into the coffee can. Tape the mold to the cardboard as it sits in the hole bottom side up. Suspend the mold over two glasses or anything which will prevent it from touching the table surface during the drying process. Mix plaster with the water in the can adding the plaster gradually in quantity that will dissolve without leaving free water at the top. Stir well until all lumps are dissolved. Fill the mold being sure that all parts are completely filled. To do this fill the mold half full and squeeze gently in the middle to force plaster into all parts. After filling the mold completely allow it to stand until dry. The length of time for drying will depend upon the size of the mold used. To remove the mold, gently rub the outside of the mold thoroughly with liquid detergent and the mold will slip out easily. Casts may be painted with tempera or enamel. Shellac for a more lasting finish.

45. Play-doh Biscuits

Materials: Play-doh, small pan or play cookie sheet, biscuit cutter

Decide on the number to be made. Give each child a lump of Play-doh and let him roll biscuits as mother does. Cut out biscuits and place on the cookie sheet.

46. Sawdust Modeling

Materials: fine sawdust from mill (pine sawdust is excellent for this purpose), paper hanger's paste or wheat paste, sandpaper, paint (tempera or enamel), brushes, shellac or lacquer, dull edge table knife, large cans or pans for mixing, wax paper to put articles on when being molded

Mix paste the thickness of very heavy cream. This is best done by adding small amounts of powder to water and mixing thoroughly until right consistency is obtained. Sift or pour sawdust into paste, stirring constantly until it is similar to biscuit dough and does not stick to hands. It is then ready for modeling. First, wet hands and then take piece of the mixture the size of object to be modeled. Proceed now to shape the desired object. For puppets it is desirable to use a core such as cardboard tubing.

Notes: Model articles solid and not too thin. Do not add on to original mold. Do not handle articles after they are modeled until they are nearly dry. Sandpapering, shellacing, cutting and trimming must be done when the article is thoroughly dry. However, some cutting around edges can be done with dull knife while article is still wet. Some articles may remain rough in keeping with their texture.

The final finish on the article may be natural, painted, stained or covered with paper maché.

Mosaics

47. Ceramic Tile Table

Materials: plywood scraps cut to size desired for table or old coffee table top, ceramic tile pieces (flooring tile may be used but get special glue for this, tile glue, tile cutter, grout (cement grout is best for this), brush, water and sponge

Work out design on paper cut to size of table top. Cover wood with glue. Lay tiles, leaving a space between for the grout. If flooring tile is used, do not leave space as grouting is unnecessary. After all tile has been glued, mix grout to consistency of thick cream and pour onto table top. Work down into spaces with fingers. Clean excess glue off tiles with sponge and water. After tiles are thoroughly dry, edges of table can be painted and legs added.

48. Egg Shell Mosaic

Materials: small pieces of crushed and colored egg shell (water colors if egg shells are not colored), colored construction paper, small bowls, cups, etc.

Draw or trace the picture or design on construction paper (a darker shade of construction paper is preferred). Place egg shells in small containers by color. Spread paste or rubber cement over design and place egg shell on the cement or paste to form the picture. If egg shells are uncolored, paint with water colors or tempera paint to give the desired effect.

49. Miscellaneous Tile Mosaic

Materials: mosaic tiles of ceramic or asphalt (there are many different kinds), mosaic tile cement, the kind used for flooring and wall tile, grout, table tops, trays of metal or wood, lamp base or anything which can be decorated with tiles, tile cutter or metal snips to break tiles, small thin knife for application of glue, vinegar and turpentine

This material can be obtained from flooring dealers, hardware stores, etc. The fancy tiles can be had through any craft supply dealer.

Possible substitutes are rocks, broken marbles, cork, wooden blocks and poured concrete tile.

Cut the tile into squares or strips according to the design desired. Lay out the tile on the surface to be decorated in order to check the design and the fitting of tiles for proper coverage of the surface. When this is done take each tile or group of tiles up and put a moderate coverage of glue on the back, being careful not to get too much as this would fill up the space between the tile and leave no space for the grout. Press each tile tightly against the base surface to make sure it fits tightly and smoothly. When all tiles are in place, pour the dry grout into a container and add water. Mix to a consistency of heavy stiff cream. Pour this over the tiled surface and work into all the cracks with the fingers. Allow to stand until it starts to harden. Quickly wipe off the excess grout and expose the surface of all the tile. Quickly wash lightly with vinegar to cause the color of the grout to be lighter in color. If the darker color is desired do not use the vinegar.

50. Paper Mosaic

Materials: paper for mounting, leaf pattern (use specimen collected), scraps of colored construction paper, scissors, paste, pencil, cardboard

Place leaf on mounting paper and trace around it with a pencil to make an outline. Cut out the leaf pattern and paste it on a piece of cardboard or construction paper. Cover the pattern, a small area at a time, with paste or glue. Hold strips of construction paper (½ in. wide) in one hand and place the end of the desired colored construction paper on the area that is covered with paste. Place one point of opened scissors on top of the construction paper. Exert pressure with the scissors and pull the paper until the paper under the point of the scissors tears away and remains on the pattern. Cover entire pattern, carefully following the outlines. Color variations are obtained by using different colors of paper.

Variations: mount the leaf itself; place the leaf under white paper and go over it with a crayon; rub crayon on leaf, place paper on top, go over it with a warm iron.

51. Seed Mosaic

Materials: either a piece of thin plywood or heavy cardboard or plyboard, picture or design either traced on board or drawn freehand by pupils, many kinds of seeds, tempera paint, glue (Elmer's works best for this), clear lacquer

Trace designs on board or draw them. First, outline object with seeds end to end. Place small amount of glue around line and then place seeds. Fill in object in the same manner. Different kinds of seeds can be used for different textures, objects or backgrounds. Do not use seeds which have been treated, as they are poisonous. Allow picture to dry thoroughly. Sections may need painting lightly on the top for emphasis where certain colors in the seeds were not obtainable. If this is true, use a nice white bean for these sections. Now you are ready to spray with white lacquer.

Possible substitutes are rocks, flooring tile cut into small pieces, shells, sand, gravel, marble chips, sawdust or bird gravel, all of which may be colored with tempera or food coloring. All of these can be used for decoration purposes on most any simple object.

52. Tile Mats

Materials: scraps of plywood cut into 5 in. squares or other desired shapes (Scraps of floor coverings like rubber or composition materials may be substituted for plywood.), glue and odds and ends of ceramic tiles obtained from contractors

Cover surface with glue (Elmer's). Place tile in pattern desired.

Nature Materials

53. Artificial Grapes

Materials: floral wire or separated strands of twisted clothesline wire, paraffin, green floral tape, crayolas, pecans, clorox, hot plate or other heating unit, tin can, file, saucepan, plastic ivy leaves

Soak pecans in a strong solution of clorox. This bleaches the color from the pecans. File the sharp pointed end of the pecans until a strand of wire can be inserted through the opening and secured by twisting. Put the paraffin in a clean disposable can and place this in a saucepan of boiling water to melt. (Don't try to melt paraffin over direct heat, as it might catch on fire.) Color the paraffin with crayolas and dip each of the pecans into the colored wax. Cover the wire stem of the grapes with floral tape and twist together in groups of threes, then arrange these groups together by twisting the wire to form a bunch of grapes. Attach ivy leaves and tendrils to the bunch of grapes for foliage. One strand of wire that has been wrapped with floral tape can be twisted around a small round pencil to form a tendril which is very decorative.

54. Candle Holders for Christmas

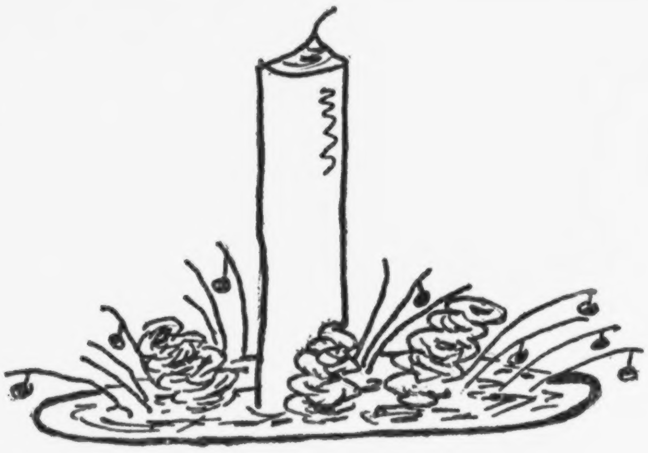
Materials: heavy cardboard, pine cones, pine needles, sweet gum balls, plaster of Paris, Christmas tree balls, short red candle, and silver or gold spray paint

The nature objects used may be secured from yards or woods. Plaster of Paris, tree balls, candle, and spray may be purchased from the dime store.

First, a circle 6 in. in diameter is cut from the cardboard. It is best to use corrugated cardboard. Mix the plaster of Paris until it is thick enough not to run. Place the plaster of Paris about 2 in. thick over the surface of the cardboard circle. Put the candle in the center of the plaster of Paris. While the plaster is still soft, arrange the pine cones, needles, etc., around the covered circle. Remove the candle from the center once the hole for it has been made. After the plaster has dried, spray the arrangement the desired color. Replace the red candle and the candle holder is complete, except for adding tiny Christmas bells if desired. The bells may be tied on the sprayed pine needles, etc.

NOTE: Pine cones and needles must be stuck into the plaster of Paris quickly, as the plaster dries rapidly. If done too slowly, trying to place the cones will cause the plaster to crack.

Do not forget to remove the candle before the plaster hardens. If you do not, it will be impossible to take it out without cracking the plaster.



55. Cotton Picture

Materials: cotton, 3 buttons, narrow wrapping ribbon (long enough to make a box), glue, a piece of light colored construction paper. Heavy cardboard may be substituted for the construction paper if desired.

On a large piece of construction paper draw a picture of a pet or animal. Cover the inside of the drawing with glue and completely cover with cotton. The animal features are made using the buttons for eyes, nose, and mouth. Paste these securely in place. Tie a bow and paste at the animal's neck. Powder paint may be used to change the animal's color if desired.

Suggestions: Cotton cloth may be used instead of cotton. Example: Gingham Dog and Calico Cat designs.

56. Fall Leaves

Materials: single colored or small branches of colored leaves, container 8 in. by 2 in. by 12 in., larger container to serve as a double boiler, paraffin, water, wax paper, cardboard for mounting

Melt the paraffin, dip the leaves or branches in the melted paraffin. Be sure that all parts are completely covered with the paraffin. Arrange the leaves or branches in place before the paraffin hardens. Place on wax paper until ready for mounting on the plain or painted cardboard.

57. Fern Picture

Materials: (For glass picture) many different ferns, 2 standard window panes, masking tape; (For paper picture) all sizes of ferns, solution of half glue and half water, wallpaper scraps, corrugated cardboard, tissue paper or wax paper

For glass picture, first place design on glass and then tip each fern with casein glue. Secure between panes of glass and bind edges with masking tape. If dried ferns are desired, and they are more lasting, place between weighted-down newspapers for two weeks until pressed and dried, then form picture in same manner as above. For paper picture, cover cardboard with wallpaper, place ferns which have been dipped in glue solution on the paper and cover immediately with tissue paper or Saran Wrap. Leaves and ferns may also be pressed with warm iron between sheets of wax paper.

58. Flower Preservation

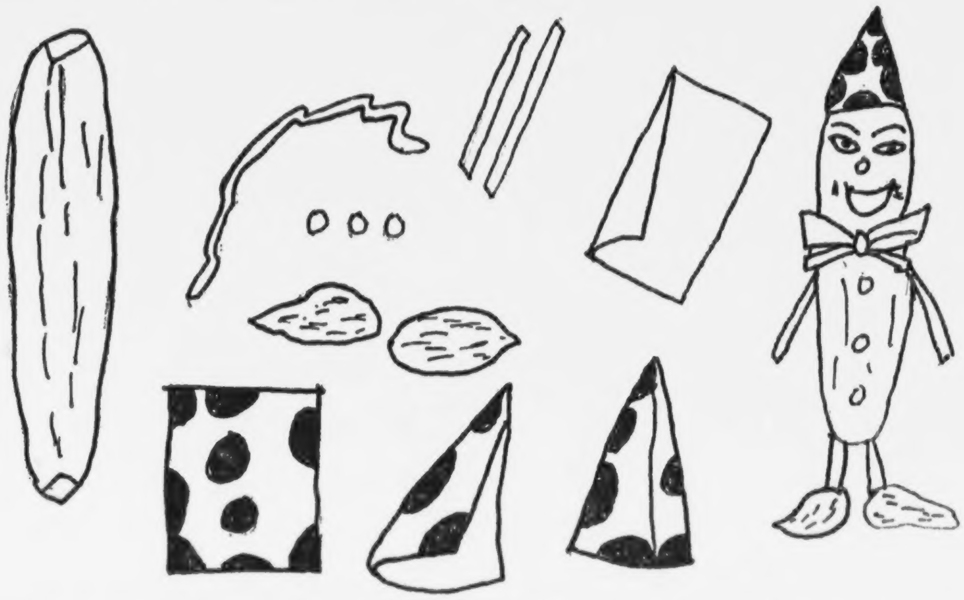
Materials: corn meal, borax, table salt, roomy cardboard or plastic container (not metal)

Mix equal amounts of corn meal and borax, adding 3 tbs. of salt for each quart. Spread the mixture about 1 in. deep on the bottom of the container. Select the freshest flowers and discard any that are damaged. Lay the flowers on the mixture in the container. Then add small quantities of the mixture and work it very gently around the flowers until they are buried. Store the uncovered container in a place that is warm and dry but where there is normal circulation of air. Do not disturb the flowers during the drying period. After ten days test for dryness by inserting a fingertip into the mixture and feeling whether petals have stiffened. If not, leave the flowers until the petals do become stiff. When flowers are dry, ease the mixture away from them by tilting the container and letting the mixture flow slowly out. Tap the flowers gently to remove the mixture and use a small water color brush to remove the last bits of it. You may now rearrange the flowers into the original bouquet or corsage. Display in a vase or, better still, in a covered container of clear plastic or glass.

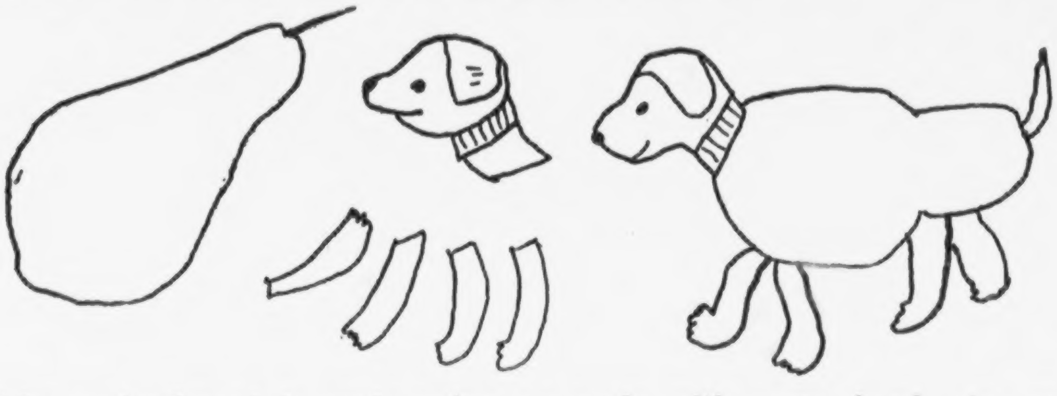
59. Fruit Animals and People

Materials: many kinds of fruit (however, apple, pears and bananas are the ones discussed here), colored paper, ribbon

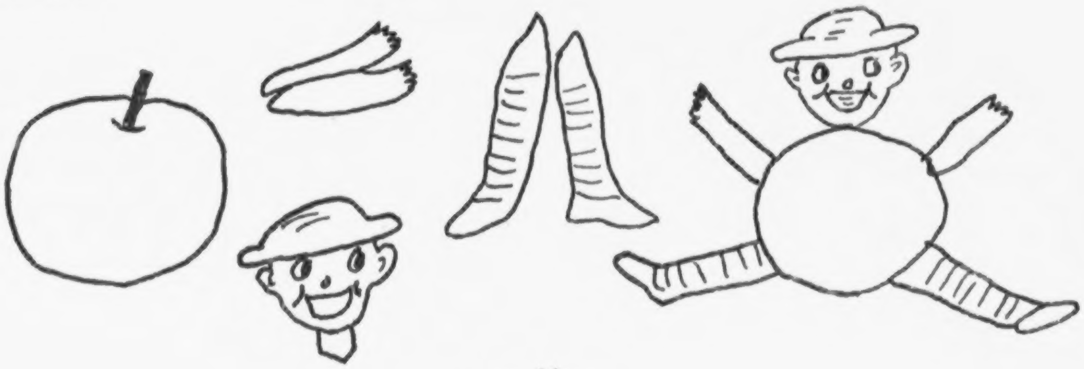
In making the banana clown, paint on the face with black ink. An almond may be used for a nose if desired. Use currants to make buttons on the suit. Two dates stuck in small plastic or wooden sticks form the shoes. Make the clown's hat from paper rolled into a cone shape and glued. Place the hat on the clown's head and tie a bright colored ribbon around his neck to form the bow tie.



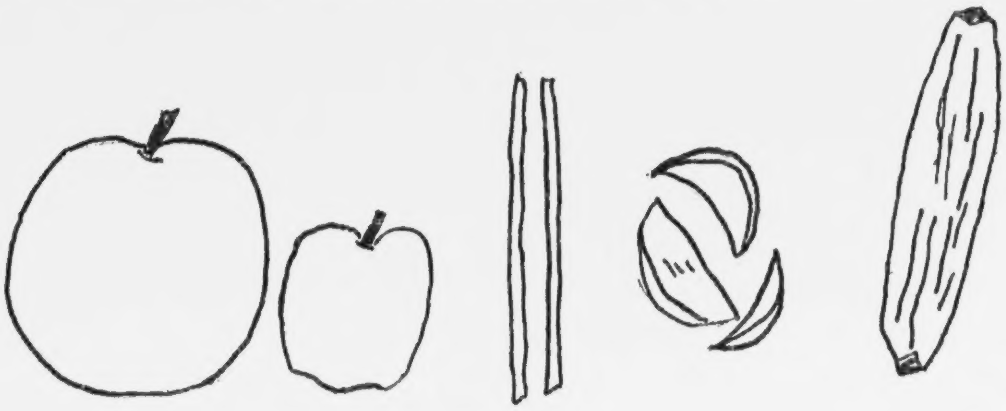
To make a pear dog, cut the head, tail and legs from heavy paper. Color them and insert in the pear as shown in diagram below.

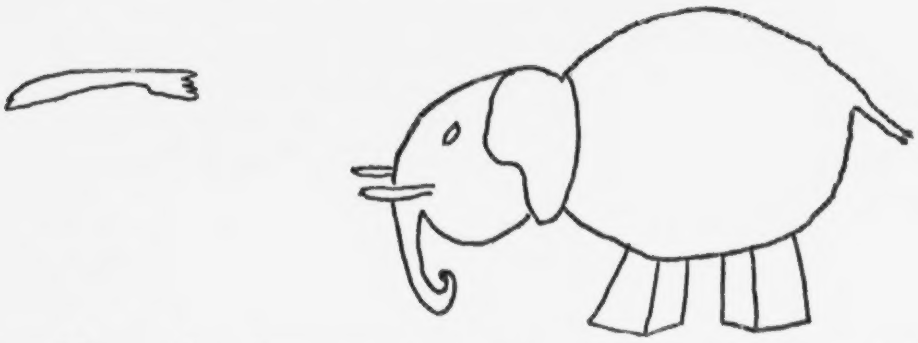


Johnny Appleseed is made using an apple with arms, head, etc., cut from white cardboard. Be sure the edge is pointed so it will be easily inserted.



To make an elephant, attach a small apple to a larger one with toothpicks. Use the almond for the tusks. Using an apple corer or sharp pencil, make the elephant's eyes. Use the orange peels for the ears and trunk. Attach these with toothpicks. The legs are made from the banana after it is cut in four equal pieces. Fasten the banana with toothpicks. Using a toothpick, fasten the string on as the tail.



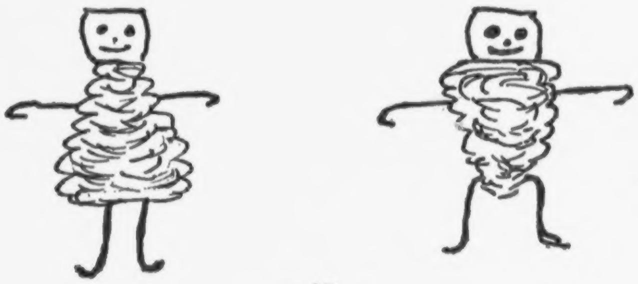


Suggestions: Many other figures and animals may be made from fruit, such as an apple Santa Claus, and orange giraffe, etc.

60. Halloween Hobgoblin

Materials: 1 long, narrow pine cone, 2 colored pipe cleaners, and a large marshmallow

Twist one pipe cleaner around the upper portion of the pine cone, the other around the lower part of the cone. Bend the tips of the pipe cleaners to form hands and feet. Taking a soft lead pencil, draw eyes and other facial parts on the round side of the marshmallow. Press the marshmallow firmly down over the top of the pine cone to form the head. (By turning the pine cone in a reversed position, a lady hobgoblin may be made.)



Other suggestions for using pine cones: turkeys, decoration for place cards, pine cone elfs, etc.

61. Indoor Garden

Materials: carrot and beet tops about ¾ in. long, a medium sized sweet potato, a kitchen sponge, mixed canary seed, jar lids, water, a foil plate, a few garden seeds such as beans, corn, peas, small cans and a jar

(1) Cut the beet and carrot and place in lids in upright position with a small amount of water. Watch for growth.

(2) Use medium potato, place in jar so that it rests on pebbles with enough water to touch the potato. Potato will make a beautiful vine for the room and children will enjoy its fast growth.

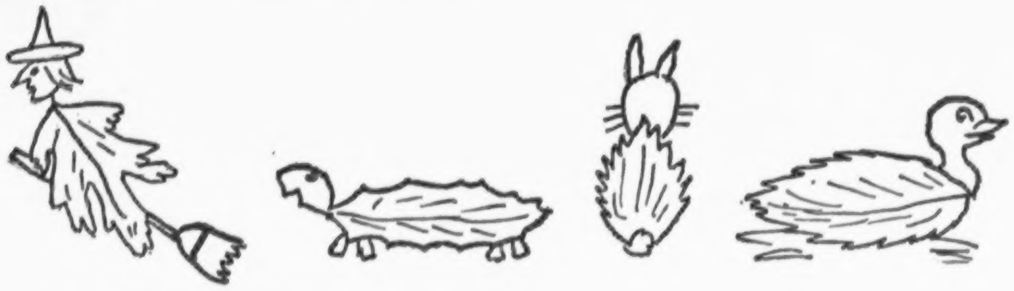
(3) Dampen a sponge and place it on a foil plate. Sprinkle it with canary seeds. Growth is fascinating.

(4) Fill cans with moderately rich loam. Plant garden seeds in them. Water every three or four days and watch for growth.

62. Leaf Pictures

Materials: many different sizes and shapes of leaves or flowers, colors, paper, scissors, and paste

Use a number of leaves, depending upon the desired pictures needed. Paste the leaves one at a time on a sheet of paper. Use imagination to create varying shapes by adding feet, legs, brooms, heads, etc. People, birds and animals may be made.



63. Leaf Preservation

Materials: leaves and other nature items, sheet of wax paper, piece of cardboard the desired size, brush, glue, tissue paper and water

Each leaf or flower must be placed on a sheet of wax paper, then placed between the pages of a magazine and pressed for at least 30 min. Sometimes a longer period is required. A piece of cardboard is cut to the desired size and the leaves then placed on the board. Mix 1/3 part glue with 2/3 part water, brushing this preparation over the leaves. Place a sheet of tissue paper over the entire surface and brush again.

Substitutes: wax paper or Saran Wrap may be substituted. If this is done, **do not** brush with glue.

64. Pressed Flower Picture

Materials: 3 or 4 flowers, 5 or 6 leaves of various shapes, 8½ by 11 in. double sheet of plastic (the kind used in loose-leaf notebooks), gummed tape, glue-on picture hook, a heavy book, tissue paper

Collect the flowers for pressing. Daisies, poppies, cornflowers, pansies, and other field flowers press well. Then get half dozen leaves that go well in size and shape with the flowers. Put the leaves and flowers between two pieces of tissue paper and then between two pages of a heavy book. Put the book flat on a table and put other heavy books on top of it.

When the flowers are dry (after about 4 weeks), start arranging them for the picture. Open the double sheet of plastic and with tiny drops of cement attach the flowers and leaves to the back sheet of the plastic. Put the other sheet of plastic on top.

65. Shakers

Materials: gourds, paint, tape, yarn or raffia, rocks, glue, sandpaper
Allow the gourds to dry until brown and light. Sand smooth. Paint on a design or face. Yarn or raffia may be glued on for hair. Seeds may be removed and replaced by rocks. Tape hole and cover with "hair."

Substitutions: Small cardboard or wooden boxes, small frozen fruit juice cans or cardboard thread cones may be used by inserting pebbles or dried beans or corn. Seal and decorate as desired.

66. Sweet Gum Ball Decorations

Materials: sweet gum balls, colored or plain toothpicks, paint (gold, silver, red, etc.), coffee cans, glitter and glue

Tie the ball on a string and dip into the desired color of paint. After the paint is dry, put glue here and there on the ball and sprinkle with glitter. Toothpicks can be stuck into the balls if desired.

Suggestions: Ball may be strung on wire and put around a coffee can until the entire surface is covered.

Styrofoam may be decorated for seasonal decorations also by using the above procedure.

67. Walnut Sailboat

Materials: walnut shells, toothpicks, scissors, colored or plain white paper and modeling clay

Make a ball of clay and force it down into the walnut shell so that it rests on the bottom. Cut a small sail. Stick a toothpick through the sail and into the clay in the shell.

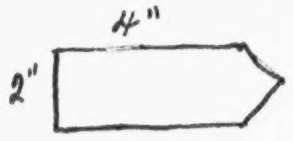
68. Whisk Broom

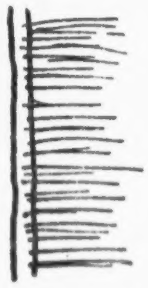
Materials: coping saw, a piece of plywood ½ by ¼ in. thick, shellac, sandpaper, enamel, pine needles, cellophane tape, colored broom cord or embroidery thread

With a coping saw, cut out a 2 in. by 4 in. piece of plywood like pattern. Drill hole at top for hanging. It may be decorated via woodburning, decals, etc. Shellac, sandpaper when dry, and paint with enamel. Allow paint to dry overnight before finishing whisk broom.

Cut ends off dried pine needle clusters. Discard broken or misshapen needles. Take a strip of cellophane tape that is long enough to go around the handle three times. Stick needles **close together** in a single row, about ½ in. from cut ends of the needles. Stick another piece of cellophane tape over it after the needles have been put on. Cut ends off evenly ¼ in. from edge of tape. Fasten one end securely to wooden piece of tape. Pull and wrap tightly around wooden piece and fasten other end securely with tape.

Cover cellophane tape with rows of colored broom cord. Embroidery thread that has been pulled through wax or a cande will do. Pull ends under and out for neatness.





Papercraft

69. Baskets

Materials: square and round food boxes such as grits, oatmeal or milk cartons, pipe cleaners, wire, ribbon, scissors, paper (construction, wall paper, or decorative shelf paper), magazine pictures and colors

Cut off any box to the desired depth. Decorate the boxes using any of the media listed above. Boxes which are not waxed can be painted if desired or decorated with various materials. Pipe cleaners or wire wrapped with paper or ribbon can be used for handles.
Suggestions: Milk cartons can be used for flower vases or planters by using the same procedure and omitting the handles.

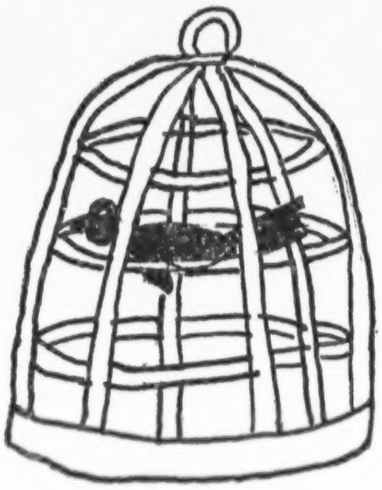
70. Bird Cage

Materials: construction paper

1 - 2 in. x 18 in. yellow strip (base)
3 - ½ in. x 18 in. yellow strips (framework)
1 - 3 in. x 4½ in. blue (bird)
1 - ½ in. x 4 in. red strip)
1 - ½ in. x 4 in. blue strip) tail
1 - ½ in. x 4 in. green strip)
3 - 2 in. x 18 in. yellow strips to form the lattice
framework around the cage, scissors, paste, thread

Paste the 2 in. x 18 in. strip to form a large circle (base of cage). Take three ½ in. x 18 in. strips and form the framework of the cage. Sketch the bird on the 3 in. x 4½ in. construction paper and cut it out. Cut 3 strips ½ in. x 4 in. to form the tail (1 red, 1 blue, 1 green) and paste these strips to the bird shape. Hang the bird from the top of the cage with black thread.

Take the remaining yellow strips and paste to the inside of the frame. Work strips to complete the cage. Form 3 circles, then form a circle at the top for hanging the cage.



71. Bird Project

Materials: different colored construction paper, manila drawing paper or other stiff paper, a ball of twine long enough to reach the length of the classroom. Extra string for each bird is necessary.

Tie the string from the front of the classroom to the rear of the classroom, above the heads of the children. This will be used to attach the birds when they are completed.

Draw a bird on manila paper or construction paper. If manila paper is used, color the bird. Cut a slit across the body of the bird and stick the wings through. Tie a string through the middle of the bird's back and attach to the twine strung overhead.

Suggestions: If desired, the school supply house has available a Master Copy book of birds that may be colored and cut out.

72. Book Cover (Jacket)

Materials: white or brown paper, wallpaper, package wrappings, finger paint paper, etc., cellophane tape, crayons, water colors, pencil colors, lettering pins, paste, ruler, scissors

Open the book to be covered and measure the distance from one outside edge to the other adding 2 in. to each side. Measure the length of the book for the width of the cover. Cut to measure. Decorate to suit taste, level and subject of the book.

(Possibilities for this project will depend upon the level for which this is used.)

Suggestions: Block printing, finger painting, lettering, original designs, paste-ons, etc., may be used. If finger painting is used, the painting is done before cutting is done. Use cellophane tape to prevent slipping.

73. Booklet Covers

Materials: construction paper, 2 paper fasteners, paste, scissors, pictures from magazines

Let each child find a picture which is related to the subject and of suitable size. Talk about and evaluate the pictures. Cut out the pictures and have each child paste his picture on the outside of the booklet. Punch two holes, insert fasteners and fasten.

74. Bookmarks

Materials: discarded envelopes, white or manila, crayons, small pictures, paste, scissors, rulers

Measure about 2½ in. from a corner of an envelope on both sides. Cut across the corner. Decorate by drawing seasonal designs and coloring, or by pasting on small pictures. Slip over the corner of any page to mark the place.

Other suggestions: (1) Cut construction paper or tagboard into strips 1 or 1½ in. wide and 6 in. long. Decorate one end as desired. Marker may be used to note daily assignments as well as to mark the place.

(2) Using left-over Christmas ribbon, cut a piece long enough to be double the length of the book and extending 2 in. on each end. Loop through book to mark the place. The ends may be cut in a "V" cut to prevent raveling.

75. Calendar

Materials: construction paper, penny calendar, a paper punch, paste, scissors, discarded greeting cards, colorful pieces of string or ribbon

Use one-half of a sheet of 9 by 12 in. construction paper. Paste the picture and the calendar in place. Punch a hole at the top of the sheet and tie with ribbon bow for hanging.

Other suggestions: More advanced pupils make a page for each month, writing in the name of each month, days of the week and the number of days for each month. As a result, pupils learn the names of the months, how many days are in each month, the days of the week and how many days are in a week. They learn to spell both the names of the months and the days of the week.

Greeting cards may also be used to make pictures, place cards and greeting cards by using parts of the cards.

Cardboard, tagboard or plywood may be substituted for the construction paper.

76. Candy Paper Flowers

Materials: the cup shaped paper from candy boxes, heavy cardboard (any size—the larger the cardboard the more flowers can be made), glue and pipe cleaners

Place the candy cup papers on the cardboard and paste. Use as many cups as desired. For variety, more candy cups may be folded in halves and twisted in a circular motion to form the centers of flowers. Thus, giving the flowers a double effect. The stems of the flowers are made of pipe cleaners cut to various lengths. The vase is made with pipe cleaners.

77. Cardboard Aquarium

Materials: corrugated cardboard, water paints, shells (if available), bits of wood, construction paper and paste. (You could substitute crayon pictures or pictures from a magazine.)

Cut cardboard to desired size. Peel off a layer of the smooth cardboard and cover the corrugated surface with blue water color. While cardboard is drying, assemble the following and prepare for mounting on the blue surface: fish, sea plants, bubbles, shells, etc. These may be pictures, real objects or constructed from other material.

78. Cardboard Tooter

Materials: cardboard tube (as found inside paper towels), tissue paper, rubber band, poster paints or crayons, large nail

Cover one end with tissue paper held in place with a rubber band. (The tissue makes a humming, buzzing sound). Snip the paper below the rubber band to make "hair" for tooter. Punch four small holes with a large nail. Enlarge the top hole with a pencil. Decorate the tooter with poster paints or crayon.

Blow into the open end, moving your fingers up and down on the holes as you blow.

79. Catalog Door Stop

Materials: thick discarded Sears catalog

Lay catalog in reading position. Tear off the thick cover. Take the upper right corner (a) and bring it across to the exact center. Take the outer edge (b) and fold to the exact center. Continue until all pages are folded in this manner. When door stop is complete it will have a conical top and circular bottom.

Caution: This is a task that should be worked on for a while and layed aside because it cannot be completed in a sitting. This could furnish free time occupation for several sittings.

80. Chinese Doll

Materials: cardboard core, small conical paper cup, colored construction paper, paste, scissors and masking tape

Cut a piece of construction paper as long as the core and wide enough to fit around the core. Paste around the core. Cut an oval of light brown paper for the face and paste at the top of the core. Put in Chinese features (slanting eyes and eyebrows). Cut two arms and paste into place. Attach cup for hat. Add black dots for buttons on tunic.

81. Christmas Tree Decorations

Materials: Many types of materials are used in this activity, foil, scraps of construction paper, cotton and old Christmas cards being most popular.

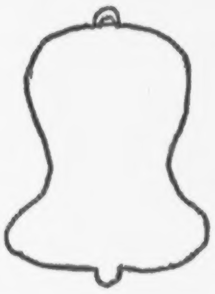
Make a chain from construction paper. Use 6 in. strips about ¼ in. wide and paste together. The chain may be as long as desired and use as many colors as desired. Gummed paper may be used.

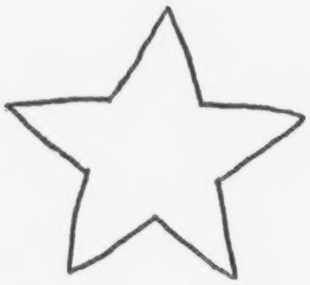
Another way of making a chain would be to take strips of paper cut in 2 in. widths. Fold the paper lengthwise and cut. When the chain is cut, pull it gently to get the chain effect.

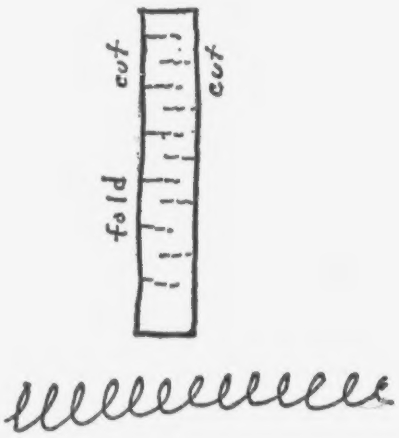
Foil may be crushed into many shapes of bells, etc., and hung on the tree. Each child may use his ability to create his own design. Thin strips of foil may also be cut to be used as icicles for the tree.

Use cotton to make balls to hang on the tree, or hang small pieces of cotton on the tree for snow.

The old Christmas cards may be cut out. Punch a hole in the top of the cut-out and tie a string through the hole. The picture may then be tied on the tree.





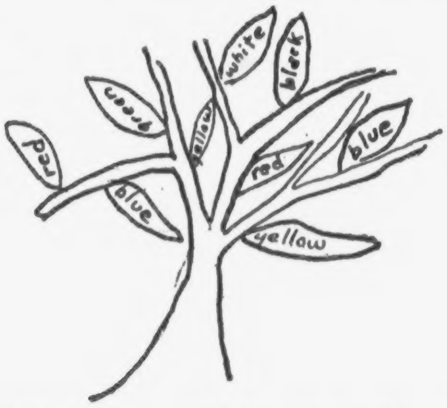


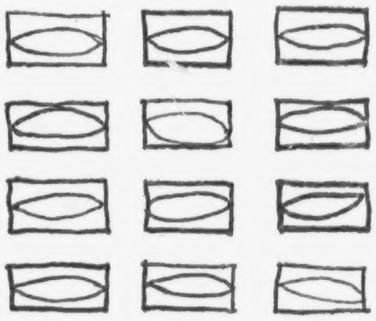
82. Color Tree

Materials: 1 large piece of dark construction paper and 1 piece of paper 4 in. by 5 in. for each of the following colors: red, green, yellow, blue, black, white

Draw a large tree outline on the large sheet of construction paper. The tree should have six limbs with two leaves drawn on each limb. Cut the tree out and write the "color word" on the tree leaves—use red, yellow, green, blue, white and black. On the small sheets of colored paper

4 in. by 5 in. draw two matching leaves. It may be easier to fold the paper and draw one leaf and then cut it, thus assuring two equal leaves.) Let the child then match the colored leaves to the "color word" written on the tree leaf. Be sure the leaves are securely pasted.





Variations: Apples may be drawn on the tree and numbered, then matched with other drawn apples. Also, numbers may be substituted for colors.

83. Collage

Materials: cardboard, paper, cloth, sandpaper, rocks, shells, seeds, cotton, sticks, felt and any other available materials which can be pasted

Cut the different kinds of material in many sizes and shapes. Glue in various positions on the cardboard. Add many different materials until picture is complete.

84. Covered Box

Materials: cigar box or any substantial box that will make a good utility box for the child's own use, wallpaper samples, scissors, paste or glue, sequins, beads, dyed seeds, buttons, etc.

Put the box on the wallpaper and mark around the edge, any side first. Cut around the line and complete that side. Take other sections one at a time until completed. Mark paper for the top. Cut and paste this in place. Decorate to suit taste of child.

Suggestions: The materials which can be salvaged for this sort of project are almost limitless. For instance, tapes, braids, cords, pictures, glitter and many others can be used.

Other types and sizes of boxes can likewise be made very attractive.

The cigar box can be painted and can be fitted with sewing needs to make a useful gift for Mother.

85. Covered Container

Materials: box, bottle or jar, various colors of gummed paper

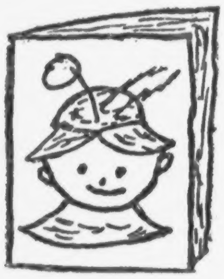
Select box, bottle or jar to be covered. Talk about suitability as to use, size, shape and form. Have some unsuitable ones so contrasts can be seen.

Cut various colors of gummed paper into small pieces of different angular shapes. Moisten with water and stick on the container being sure to overlap edges slightly.

86. Decorated Note Paper

Materials: a card or note paper, paints, buttons, felt flowers, feathers, cloth

Fold the index card (plain, 4 in. x 6 in.) half across the width of the card. Glue the button on for a face, add hair and paint. The hat may be cut from the felt, and flowers and trim added. Many other designs may be made on the card using other materials. These may be boxed and given as a gift to someone.



87. Drinking Straw Beads

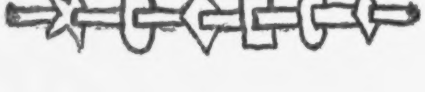
Materials: drinking straws (paper or plastic), scissors, string or narrow ribbon

Cut the straws into short pieces, and string the pieces with string or ribbon to make necklaces or bracelets. Leave enough string to tie.

88. Drinking Straw Chain

Materials: large needle, wool thread, construction paper, aluminum foil, ruler, scissors, drinking straws (assorted colors)

Thread needle with double (24 in.) thread and tie a knot. Cut the straws (colored) various lengths; cut the foil and colored construction paper into different shapes and designs (stars, flowers, circles, squares, triangles, etc.). String the straws, paper and foil alternately until 2 in. from the needle. Begin and end with a paper design. Cut off the needle and tie a knot at the last top paper design. Tie the two loose ends into a knot forming a loop for handing from one of the branches of the Christmas tree.



89. Drum

Materials: oatmeal or any round cereal boxes, tempera paint, glue, raffia, yarn, carpet needle, cord

Carefully remove one end of the cereal box. Cut the box to about 6 in. tall. Glue cover back in place. Decorate as desired.

Variations: Remove both ends and cut box to about 6 in. tall. Paint box and ends contrasting colors. Lace ends together enclosing the box to form the drum. Use raffia, yarn or any other available cord. Add a string or cord to hang around the neck.

90. Easter Hat

Materials: large wallpaper samples, ribbons (leftovers), stapler and staples, discarded flowers, bows, etc.

Place the pattern on a double thickness of paper. Solid colors and prints may be combined for pleasing effects. Clip pattern to paper to prevent slipping, and cut out the hat. The hat can be fitted to the head and stapled in the back. Ribbons can be added for tying and decorations can be placed on the brim.

91. Egg Carton Earring Case

Materials: egg cartons, water colors, sequin, laces, buttons, etc. Seeds which have been dyed can be used. Glue can be applied from plastic squeeze bottle.

Paint or spray the egg carton and when dry, buttons sequins, seeds, scraps of lace, ribbons, rickrack, tape or braid can be used for decoration. These are put on with glue. Picture cutouts or parts of greeting cards can add to effects. Each compartment becomes a nest for a pair of earrings.

92. Egg Carton Flowers

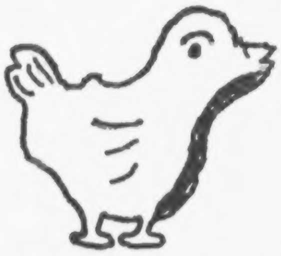
Materials: egg carton, pipe cleaners, various colored paints, brush

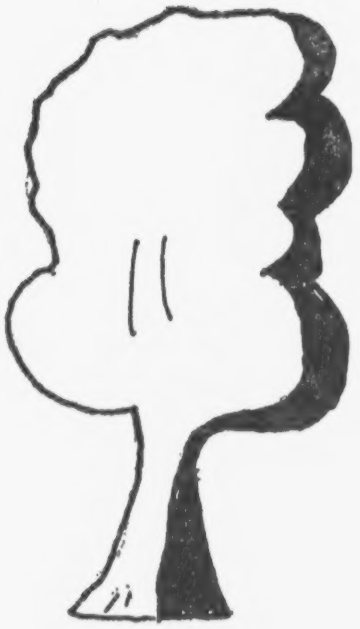
Each raised section of the egg carton must be cut out to form the flower shapes. Once the shapes are cut, stick the pipe cleaner through the center of shaped flowers and fasten in place to make the stems. The flowers are now ready to be painted. When the flowers are painted and allowed to dry, place in a vase, pot, etc.

93. Envelope Fun

Materials: envelopes (new or used), scissors, paste, tempera or water colors, colored crayons, designs or pictures cut from magazines

Seal or glue the flap on the envelope. Draw or paste like or similar designs on front and back of envelope. Be sure the tops of the designs come to the top of the envelope. Color as desired, then cut all around the design except where the two designs meet at the top. Stand your design up.





94. Family Picture Book

Materials: wrapping paper, magazines, catalogs, paste and scissors, stapler and staples or paper fasteners

Let each child find a picture to represent himself. Paste the picture on the first page. Under the picture he prints his name. More advanced students may add such facts as age, address, school, etc. If desired, the teacher may print this information for the child. The next page is a page for the child's mother, the next for the father and other members of the family followed by pages for favorite relatives, then pets, etc.

Where real pictures are available, the head of the person is cut out and pasted on figures from catalogs.

95. Feature Assembly

Materials: several colors of construction paper, scissors, a flannel board

The teacher draws and cuts out an oblong figure for the outline of the face, two eyes, two ears, two eyebrows, one nose, one mouth and hair. The children assemble the face using the parts on the flannel board.

96. Foil Animals

Materials: left-over foil or foil purchased from the dime store or grocery

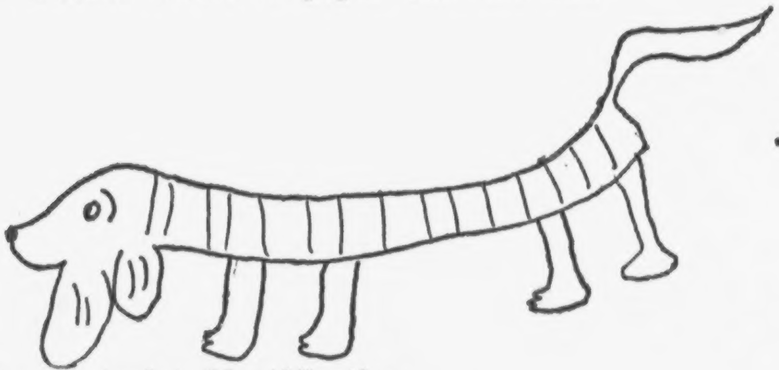
Shape the foil into the desired form to make an animal. Squeeze the foil into small pieces to make the smaller body parts. It may be necessary to show the child various ways of making parts by stretching, squeezing and gently pushing the foil into place.

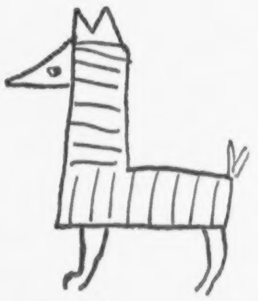
Suggestions for using foil: Bowls, decorations, flowers, and pictures are only a few of the other things to be made of foil.

97. Folded Paper Farm Animals

Materials: poster paper, construction paper, paste, scissors

Cut the construction paper to the desired width for the animal to be made. Take the cut paper and fold in accordion fashion as when making an accordion fan. Add a head, feet, tail and ears. These may be drawn on another sheet of paper and cut out.





98. Footprint Identification

Materials: construction paper, white crayon or paint, scissors, pencil

Let each child stand on a piece of construction paper. Make an outline of the feet and cut out. Print the child's name on his "feet" with paint or color. Mount them on the wall showing them coming to school or going from school.

99. Funny Clown

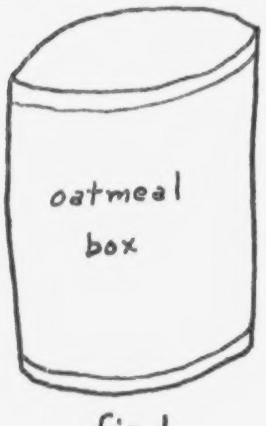

oatmeal
box

fig. 1

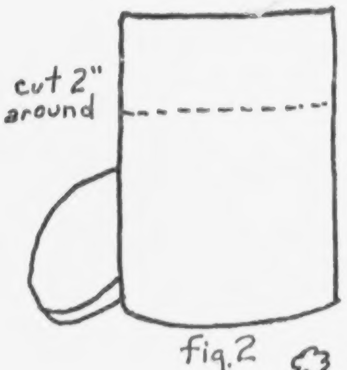

cut 2"
around

fig. 2

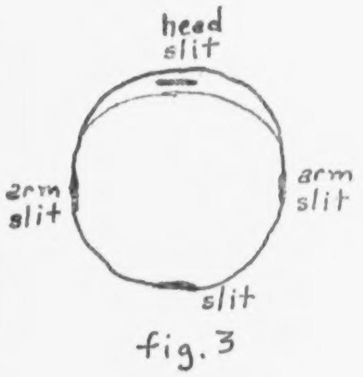

head
slit
arm
slit
arm
slit
slit

fig. 3

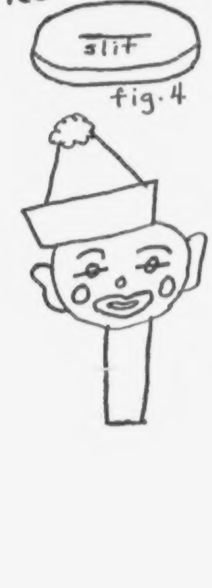

ice cream lid
slit

fig. 4

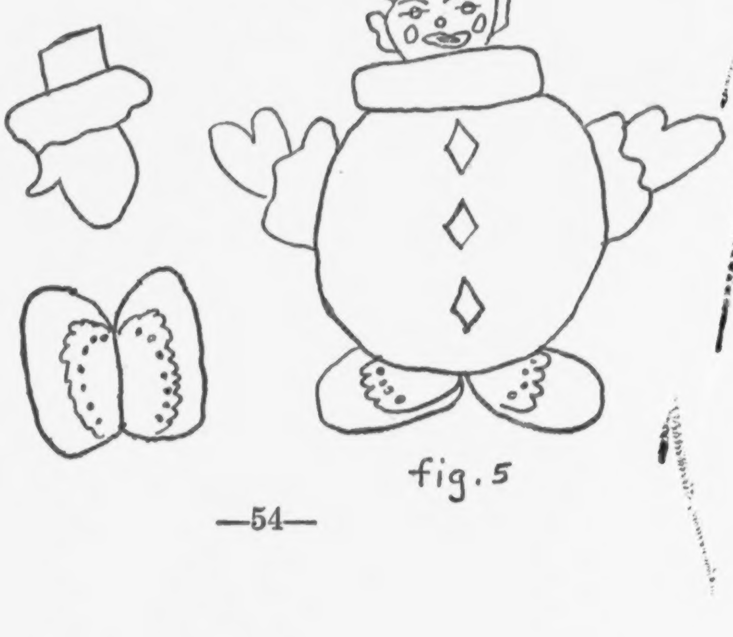
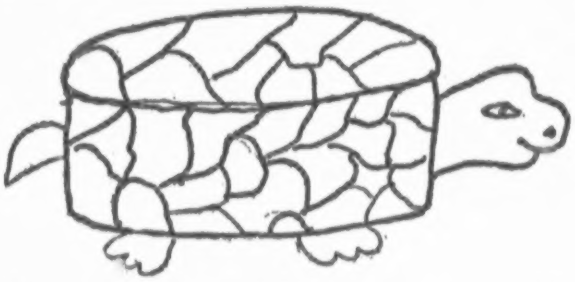


fig. 5

Materials: oatmeal box, colored paper, scissors, paste, ice cream carton lid, cardboard

Take the oatmeal box and cut it to a depth of 2 in., after removing the lid. Once the box is cut, replace the lid and cover with colored paper. Make slits at the sides and top of the round covered box for head and arms. Cut the body parts from cardboard and color. Use the ice cream carton lid for the clown's collar, cutting a slit in the top. Insert the arms and head. Paste on the feet.



Variations: Cut the oatmeal box 3 in. deep, cover with green paper, and make the markings with black color. Cut four feet, head, and tail and you will have a turtle.

100. Gift Wrapping

Materials: wrapping paper cut into suitable size for wrapping, wax crayon pieces, scissors, electric iron

The children work together and select colors which they like. Using scissors, chip or shave crayons very finely on paper scattering over the entire surface. Place another sheet over the first, matching corners. Iron over entire surface with a moderately warm iron. This is done with the teacher's supervision. Two pieces of paper are made this way so that each partner gets one.

101. Home Bulletin Board Project

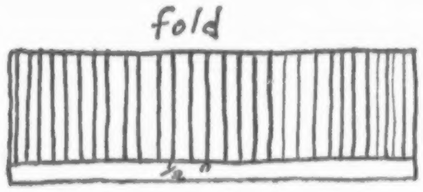
Materials: a large bulletin board, blackboard, mural paper, masking tape, scissors, old magazines

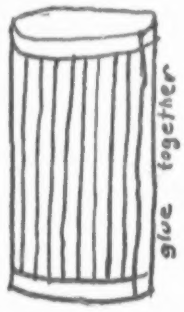
This can be one of the first projects attempted as a group. Talk about the home and the different living areas. One room can be taken each day until the project is completed. Suitable pictures which represent the various objects for each room are found, cut out and placed in the area designated for the day's work. The teacher mounts the objects with masking tape. If this project is developed later in the year, the children can do the mounting.

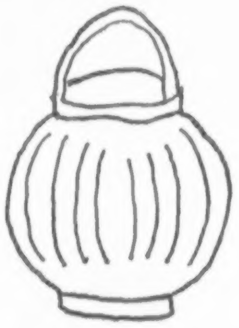
102. Lantern

Materials: paper, scissors, paste and possibly crayons. Many types of paper may be used such as colored construction paper, gift wrapping paper, lined notebook paper.

Fold the sheet of paper lengthwise. Cut strips ½ in. apart across the width on the folded edge of the paper. Leave uncut about ½ in. on the straight edge. Unfold the paper. Bring the top width edges together by forming a circle and paste these together. Take a strip of construction paper and cut a handle ½ in. wide, pasting this to the top of the circular lantern. Press the lantern down gently to allow the cut strips to spread, thus giving added shape to the lantern. (For variety the slits may be cut with pinking shears.)







103. Life Size Model

Materials: wrapping paper, scissors, pencils, crayons

Lay the child on a piece of paper and draw his whole outline. Cut this out and let each child dress himself with colors. The facial features may be drawn in by the teacher.

104. Maracas

Materials: newspapers and magazines, paper towels, wheat paste, 6 small tacks, 2 round rubber balloons, 10 dried peas or beans, 2 wooden dowels ¾ in. by 10 in. long, poster paint, clear shellac, pen knife, string

For each maracas, blow up a balloon until it is 13 in. around and tie neck with a 6 in. length of string. This will be your form. Cover balloon thoroughly with vaseline or salad oil. Tear several pages of newspaper into 1 in. strips (lengthwise). Tear about six paper towels into similar strips, across the grain.

Wet newspaper strips well with paste and wrap around the balloon, smoothing with the fingertips. Apply overlapping strips all running in the same direction until the balloon is covered. Cover ½ in. of the neck of balloon with strips. Repeat whole process with strips of paper towel, working in the opposite direction. Do a third layer of newspaper strips working in first direction. Apply a heavy coat of paste to outside and hang by string until dry (about 24 hrs.). Apply another layer of paper towel strips and a final layer of brightly colored pieces of paper, torn from magazines. Coat with paste and let dry. Untie string and remove balloon. Whittle dowel to fit neck of maracas. Whittle a tapering hand grip if you wish. Insert peas or beans in maracas. Push handle to top of maracas, slashing opening at neck if necessary. (Slash may be covered later with additional colored paper.) Attach handle by driving tack through top of maracas into end of handle. Drive two more tacks through neck of maracas into handle. Decorate maracas with Indian-like designs using poster paints. Shellac maracas when dry.

105. Napkin Holder

Materials: cardboard cores from foil, wax paper, etc., precut rectangles which will cover the 6-in. cores, paste, crayons

Have precut 6-in. lengths of cardboard cores and rectangles of paper (wall, construction, wrapping, decorative, shelf, etc.) ready for the project. Brush on paste and fit the rectangle over the core, being careful to keep the edges of the paper and core even. If plain paper is used, it must be decorated before pasting. The child's name or initials may be placed on the holder.

Suggestion: Cores can be used for tie racks by using the whole core and tying ribbons or cord for hanging.

106. Paper Bag Puppet

Materials: crayons, newspaper, small rubber bands, 1-lb. paper bags

Draw facial features on the front of the folded bag. Color face and hair or add curled paper for hair. Open the bag and stuff it with shredded newspaper. Twist the bag and secure with a rubber band. Place over the fingers to move the puppet.

107. Paper Dolls

Materials: wrapping paper, colors, scissors. Almost any kind of plain paper can be substituted for the wrapping paper. Longer paper facilitates the linking of several together.

Give each child cut-out paper dolls—one doll, two or several linked together, depending upon the teaching situation. Talk about how they should be dressed, have the children express themselves freely, and then let them dress the dolls by coloring on clothes.

108. Paper Flowers

Materials: foil in sheets (scrap or leftovers), tissue paper, Kleenex or crepe paper, tape, pipe cleaners or florist wire

Cut the paper in 2-in. squares. Gather in the center and attach wire or pipe cleaner for stem. Trim edges if desired. Open to form the flower. Leaves may be cut from construction paper and taped to the stem. These general directions can be followed for all media named. Crepe paper flowers can be pulled on the edges for ruffling or fluting. Centers of yellow construction paper can be glued in centers depending on kind of flower wanted.

109. Paper Painting

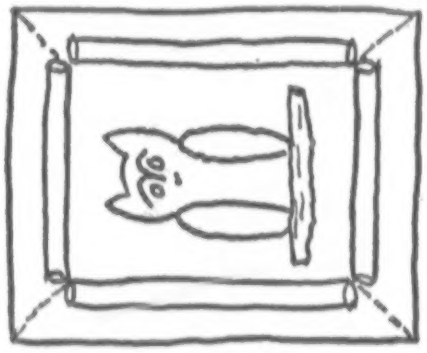
Materials: large pieces of wrapping paper (newsprint is also good), tempera paints, long brushes, easels and cardboard for backing or mounting

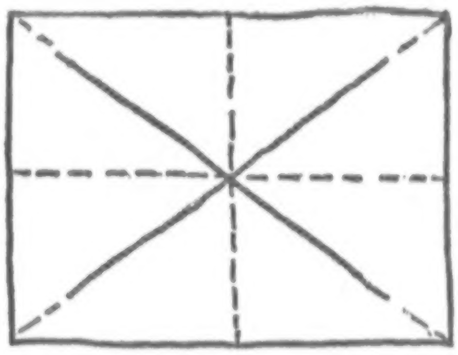
Put paper on easels, two children working at each easel, and put small jars of tempera in jar racks. Let each child paint anything he wishes. Then let him share his experience with the class.

110. Paper Picture Frame

Materials: construction paper, scissors

Fold the sheet of construction paper in half, lengthwise. Unfold and fold in half, crosswise. Then fold diagonally corner (1) to corner (3), unfold and fold again diagonally from corner (2) to corner (4). In the center of the paper where all the creases crossed begin to cut on the diagonal lines to within ½ to ¾ in. of each corner. Lay the paper on a flat surface. Begin at the center of each triangular point with a pencil and roll each section very firmly outward to the end of the cut edges. Use a spot of glue in the center of each section if it has a tendency to curl. Attach this frame to the picture or design.





111. Paper Plate Clock

Materials: a 12-in. paper plate, 2 cardboard strips, crayons, 1 brad

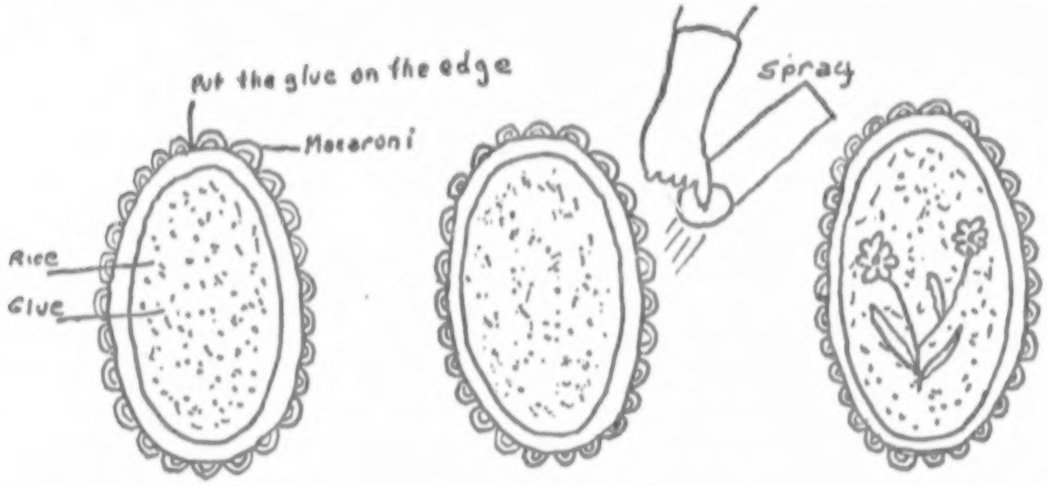
Write the numbers from one to twelve around the edge of the paper plate. Observe closely to see that numbers are properly spaced on the plate. Make the clock hands by cutting the two cardboard strips at an angle on one end. Place the short hand on the bottom, the long hand on top, and push the brad through the two strips in the center of the clock face. Turn the clock face down and secure the brad so as to allow the hands to move freely. (It may be necessary to punch holes in the clock before securing the brad.)

Suggestion: Plain cardboard may be used instead of paper plate by cutting out a circle and following directions above.

112. Paper Platter Wall Plaque

Materials: paper platter, elbow macaroni, rice, glue, gold spray paint, artificial flowers, heavy thread or florist wire

Select the size platter to use. Put glue all around the raised edge of platter. Place the elbow macaroni on the glue, turning the macaroni in the same direction each time. Spread the glue over the bottom of the platter. Sprinkle the rice thickly over the glue. Let dry about five or ten minutes. Shake off surplus rice. Spray the platter (both sides) with gold spray. Let this dry then fasten the artificial flowers to the bottom of the platter with a heavy thread or wire. Attach a picture hanger to the back of the platter so that it can be hung from the wall.



113. Paper Straw Picture

Materials: straws 9 in. and 12 in. lengths colored light blue and pink, construction paper, paste, scissors, crayons

Use orange crayon to draw an outline of the picture to be made on the 9-in. by 12 in. construction paper. Keep the picture large and with little detail. Cut and fit the straws to construct the picture you desire. Place the straws in place first to see how the picture will look. When satisfied with the desired effect paste the straws in position. Use crayons to color the background of the picture.

A boat, house, fence or any simple picture using straight lines may be used. Straws make good 3-D lettering for bulletin boards and posters.

114. Paper Tearing

Materials: wrapping paper (newsprint or various colors of construction paper), sheets of paper for mounting (12 in. by 18 in.), paste

Teacher demonstrates how paper can be torn into various shapes, as trees, houses, etc. Let children create a picture from objects which they tear by pasting the pieces on construction paper.

115. Picture Creativity

Materials: a flannel board, construction paper, colors, scissors, sandpaper. Possible substitutes are pictures from magazines with sandpaper pasted on the back. Pictures from color books may also be used.

The teacher draws pictures of houses, trees, boys, girls, animals, cars, birds, flowers, barns, etc. Give each child some of these and have him color them. Pictures are assembled on flannel board or construction paper.

Suggestion: More advanced children can find pictures in magazines or catalogs. Magazines can be brought from home.

116. Picture Sculpture

Materials: pictures from magazines or color books or merely outlines furnished by the teacher, drinking straws, crayon, paste

Pictures are selected which are bold in detail or not intricate in design. The child, from a pile of assorted lengths of drinking straws, selects appropriate pieces to fit on the outlines of the picture. If an outline is used for a basis of the picture, it is colored before pasting is done with the straws.

117. Play House

Materials: large pieces of corrugated board such as large boxes or packing cases, tempera paint and brushes, and play furniture or building blocks

Have boards cut into strips which are large but with several folds in them. Children can stand the boards up as screens and make the walls for their playhouse. Long brushes can be used to paint windows and doors with tempera. Furniture can be constructed from large building blocks.

118. Rattles

Materials: any substantial, small container such as cereal boxes, thread cones, cans, gourds, etc., masking tape, short dowels or short sticks with the bark removed, crayon or tempera, rocks or pebbles

Select suitable container. If a carton is used, it must be cut so that it can be closed and sealed. Small rocks are added before sealing. If a can is used the hole can be sealed with masking tape. Either carton or can may be painted, covered with construction paper, wrapping paper, gummed paper or wall paper and figures drawn or cut-outs pasted on. Dowels can be pushed into containers and secured with tape. These rattles can be used as rhythm band intruments or as noise makers for Fourth of July or Halloween celebrations.

Suggestions: Dried gourds decorated with Indian motifs and sealed with small rocks inside make good rhythm instrument.

119. Rhythm Mittens

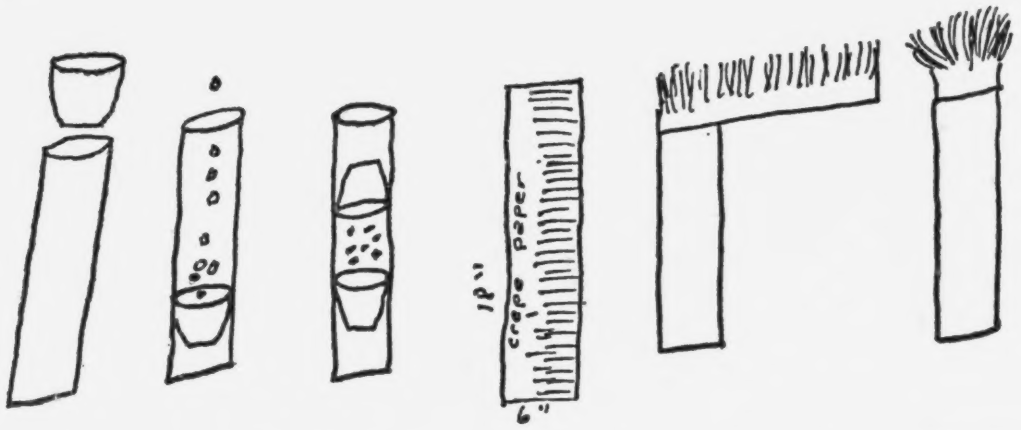
Materials: cardboard, sandpaper, elastic, crayons or poster paints, paste, scissors, staples

Paste a piece of sandpaper to a cardboard backing. Draw a mitten shape for both right and left hands on the sandpaper-covered cardboard. Cut out and decorate on the cardboard side. Staple a piece of elastic on either edge of the "mitten," above the thumb on the cardboard side, so that the mitten can be slipped over the palm with the elastic stretched tightly over the back of the hand. Use the mittens in a sweeping up and down motion as you do with cymbals.

120. Rhythm Shaker

Materials: 2 paper cups, a paper towel tube, crepe paper, beans

Force a small paper cup, bottom end first, into the paper towel tube. Place 10 to 15 beans into the cup. Push the second cup into the tube, open end first. This will completely block the tube opening, thus holding the beans inside the tube. Cut a strip of colored crepe paper 18 in. long by 6 in. wide. Fringe one side of the strip to 4 in. deep. Take the 18 in. strip and wrap and paste the straight edge around the end of the paper towel tube with the fringe sticking up. It may be necessary to do this numerous times. Cover the remainder of the tube with crepe paper.



Suggested ideas for other uses of towel tubes: marionettes, candles, pot holder racks, candy canes, etc.

121. Sailboat

Materials: a piece of construction paper, a cork, 2 straight pins

Fold a one-half sheet construction paper. Draw a boat with the top of the boat on the folded edge. Cut out the boat and pin a cork between the bottom pieces. With the cork inserted, the boat floats on the water.

122. Spatter Print Plaque

Materials: poster paint or tempera, construction paper, an old toothbrush, small piece of screen wire and a poem for the inside fold

Cover desks with newspaper to protect them from paint. Double a sheet of construction paper crosswise. Open the paper and place the child's hands in the sections, palms down. Let a partner hold the screen wire two or three inches above the hands. Dip the toothbrush in paint and that will contrast with the color of paper used and brush over the screen, spattering the paint on the paper around the hands. When painting is dry, refold and paste the poem inside.

Suggestion: Leaves or other nature materials or abstract forms cut from paper may be used instead of the hand.

123. Story Book

Materials: wrapping paper (suit or dress bags are good), scissors, old magazines, a stapler and staples or string

Use sheets of paper about 20 by 30 in. in size. Double as many sheets as desired and staple or tie together at the center to bind. Five sheets are suggested. Number the pages to ten. Do not use both sides since paper has a tendency to wrinkle when pasted.

Cut pictures from magazines. Children will see stories in these. Paste one on each page. Talk about the stories and share them with friends and classmates. Make a gift for another child.

124. Table Mural

Materials: a primary table, paper to cover the surface, chairs, tempera or crayons

Cover the table with large piece of wrapping paper; seat several children at the table and let them color anything using any colors they desire.

125. Tambourines

Materials: paper pie plates with metal rims, bottle caps, yarn

Use same directions as for tambourines from metal pie pans (#32). For variation, lace two plates together using corn, beans, etc., inside. Then tie the caps on.

Substitutions: Covers from gallon syrup cans, coffee cans, etc., may be used by using paper fasteners to fasten caps at regular intervals.

126. Torn Paper Picture

Materials: scrap pieces of paper such as construction, tissue or Kleenex cardboard and paste

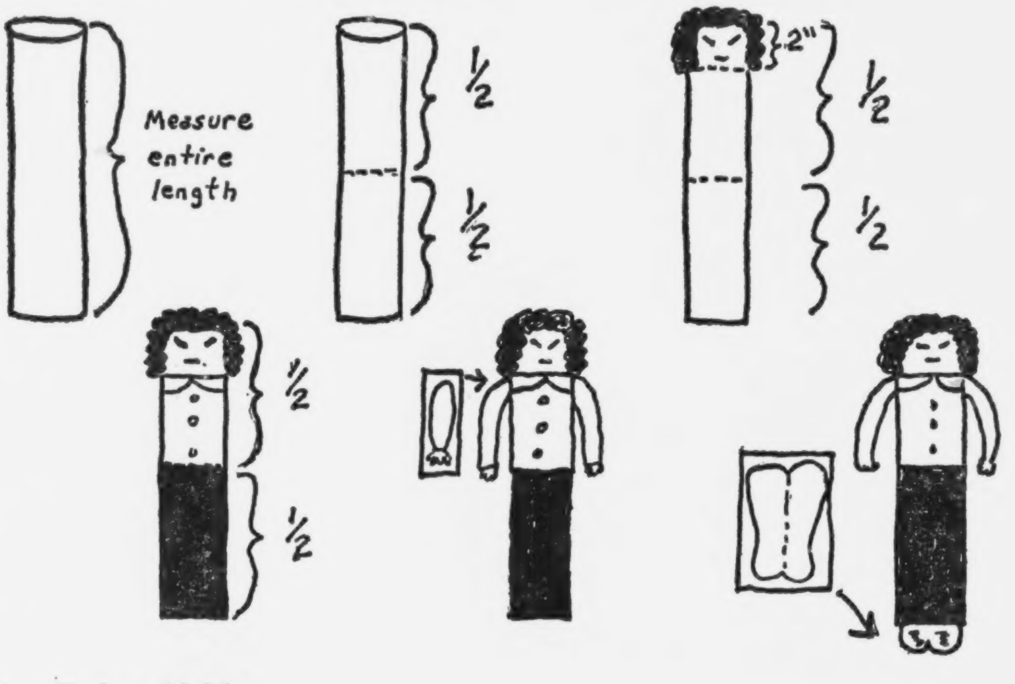
Draw simple designs on the cardboard. Cut or tear paper into small pieces. When enough has been torn for the design, spread paste over the entire surface of the design. Paste bits of paper over the design to cover it.

Suggestions: The same procedure may be used to cover cases, boxes and discarded jars, glasses and cans, using shellac over the entire surface when thoroughly dry. Teacher uses spray shellac.

127. Tubing Figures

Materials: cardboard tubing from paper towels, etc., rulers, paint and brush, yarn, scissors, paste

Measure the length of the tube and mark it at the halfway point. Now measure the top half and mark a strip 2 in. from the top. On this 2 in. strip paint a face with the features desired. Use yarn for hair. Cover the entire top of the roller and extend down the sides for as long as desired. Use the second area for the upper torso and paint the desired clothing on it. Use the third area for the lower torso and paint desired clothing on it. Cut arms from construction paper and attach to the side. These should be long enough to extend from the chin area to just below the waist. Paste them on at the shoulder area. Shape and cut a pair of feet from construction paper and paste on the bottom of the roller. Hats and other accessories may be added.



128. Twine Holder

Materials: half-pint ice cream container, paint, paste, wallpaper, brush, shellac

Paint the inside of an ice cream container with poster paint. Cover the outside of the container with wallpaper and paste. After the paste has dried, cover the container with shellac to make it shine. Place a ball of twine inside. Punch a hole in the top and pull the end of the twine through it.

Suggestions: A coconut may be used instead of a container. Saw off coconut top large enough to place twine inside. Remove the meat. Paint on eyes, nose and mouth. Drill hole in the mouth and pull twine through. Tie a scarf on the top where sawed.

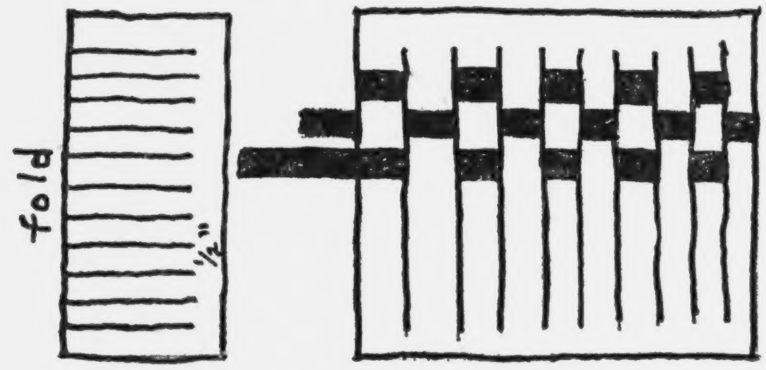
129. Wax Paper Place Mat

Materials: wax paper, pretty flat leaves or paper designs

Cut two pieces of wax paper the same size. Arrange design of leaves or paper on one piece and place the other piece of wax paper on top of the design. Press with a warm iron.
Suggestions: Decorate with holiday motifs to add zest to the family meals.

130. Weaving

Materials: any kind of paper such as construction paper, newspaper, etc. Construction paper is the media most used because of its stiffness. Fold the sheet across the width of the paper. Cut strips ½ in. apart from the fold. Leave about ½ in. on the straight edges uncut. Unfold the paper. Cut strips ½ in. wide of another color or colors. Enough strips will need to be cut to fill the entire space. Follow the basic procedure for weaving—one over, one under, one over, etc., until the entire surface is covered. A WORD OF WARNING: If the weaving process is begun by going over, then under, then over, etc., the next strip used must begin under, then over, then under, etc. Follow this alternating procedure throughout the weaving project.



Suggestions for Weaving Variations: One additional suggestion would be to place a valentine cut-out over the woven design. May be used as place mats.

Photography

131.

Materials:

1. A safelight with a red and a yellow slide. The red slide is for use when you are developing all films except panchromatic which must be developed in darkness. The yellow one is for use when printing on most paper.
2. A glass graduate to measure liquids
3. A spoon to stir with
4. Two or three 5 x 7 in. trays

5. A developer for negatives
6. A developer for the photographic paper
7. A pound of acid hypo to desensitize the film and prints after development
8. A thermometer to check the temperature of the solutions
9. A printing frame to fit the negatives
10. A package of contact paper
11. A clock with a loud tick
12. A dishpan to hold water
13. A small place that can be turned into a darkroom. A large closet will do. All the supplies can be obtained from a camera store. Some studios and drug stores also carry photographic supplies.

The process is very simple. Be sure room is completely dark. Mix the developer and hypo by the directions on the package. Pour the mixed developer for negatives into one tray and the hypo into the other. Turn out the lights and turn on the red safelight placed about five feet from the trays. Remove the paper backing from your film. Place the film into the developer, making sure that it is covered all over. Rock the tray slightly from time to time. Watch the film to see when the picture is developed fully. When the time is up, rinse the film in a dishpan of plain water and put it into the hypo. Leave it there until the yellow backing has disappeared from the film, about 5 or 10 min., or a good rule to remember is to leave the film in the hypo twice the time it takes it to clear. Now, turn on the lights. Take the film where it can be washed in running water for half an hour. Stick a pin in a corner and hang it up to dry in a room as dustfree as possible.

If the film is too long to go in the tray, hold an end in each hand and pull the film up and down through the developer, making sure the ends go in each time. Keep it moving through the developer until the time is up. The same can be done with the hypo. Be sure to keep hands free of hypo at any other time.

Prints can be made after the negatives are dry. Mix the print developer by the directions on the package and put it into the tray. The same hypo used for the negatives can be used. This time, use the yellow safelight. Turn out all others. Put a negative in the printing frame, shiny side down on the glass and a sheet of contact paper on top of the negative with the emulsion side toward the negative. (The paper will curl towards the emulsion side.) Close the printing frame. Be sure the rest of the paper is back in its lightproof cover. Now place the printing frame 1 ft. from any light bulb of about 60 watts and turn on the light. At the end of 5 seconds, cover 1/3 of the negative with a piece of cardboard and expose 5 more seconds. Move the cardboard until it covers 2/3 of the negative and expose 10 seconds. Turn off the light. Put the paper into the pan of developer for 1 min., then in the hypo for 3 min. This is the test picture for the best exposure. Turn on the light and see which part of the picture looks best. If it is all too dark, cut the exposure time in half by leaving the frame 2 ft. from the light. If all of the exposures seem too light, double the time. Make prints from the exposure that looks about right. Put them into the developer for 1 min. and leave in the hypo for 10 min. Turn on the light. Wash under running water for 1 hr. Put face down on a towel to dry.

Here are some things to remember.

Time the clock and see how many ticks in a second. Learn to count the ticks for exposures because sometimes it is difficult to see the second hand.

Always make a test picture for the best exposure. It saves time and materials.

Always develop the negatives and the prints fully for the best negatives by one small corner so as to avoid fingerprints on them.

Keep the developer between 60 and 70 degrees Fahrenheit. The warmer it is, the faster the print will develop. (This can be done by placing the developer pan in a larger pan of ice water.)

Don't overwork the developer. One pan will print about 15 or 20 small pictures. Discard the hypo when it is worn out. Ten ounces wil fix about 50 prints. Always keep the hypo pan in the same place so it won't be mistaken for the developer.

Keep your hands and your dishes clean.

Developer that is mixed should be stored in a dark colored bottle.

Enlarging

Put the negative in the negative-holder of the enlarger, dull side down. If it is smaller than the holder, cut a black paper mask to keep the light from getting around the edges. Lay a sheet of white paper of the size the picture is to be on the easel below the enlarger. Turn on the light in the enlarger and move it up and down until the image on the paper is the right size. Focus it with the focusing device, making sure the image on the paper is very sharp. Turn off the light. As in contact printing, it is best to make a test picture, or in this case, a test strip. Take a small strip of enlarging paper (a bromide paper) and expose it under the enlarger. Move a piece of cardboard across the strip for various times of exposure. Develop the strip for a minute and a half, rinse and put it into the hypo. Select the part that looks best and use that exposure for the picture. Pick the section on a test strip in which the highlights just fail to have a gray tone over them. If negative is developed fully, the other tones will be right. If the shadows are too dark and the negative has loose details, the paper may be too contrasty.

A good print has what is called "print quality." The highlights are bright and the shadows contain rich deep blacks. In between these two extremes, there is a range of tones from a gray that is almost black to a gray that is almost white. The prints will not have this quality if the highlights are dulled by a faint suggestion of gray and the shadows are not black but very dark gray. In other words, the print will not have the whole scale of tones. A negative that has not been fully developed will be too soft in its tones to get the desired contrast. A hard paper and a hard developer help to compensate for this effect. Bromide papers range from hard to soft. Nothing, however, takes the place of a good negative. If the prints are too flat, try developing the negatives twice as long.

With an enlarger, it is not necessary to print the whole negative as you do in a contact print. See if the picture can be improved by printing the best part of the negative. (Most of them can.)

Practice work with various prints helps to improve the print. One develops the ability to tell when a negative is too contrasty, or too soft, too thick or too thin. Such things as a rough surfaced paper isn't best for a baby or a buff paper for a sandy beach or snow are soon learned. To get the best composition possible from a negative, make a contact print of it and study the print for its possibilities.

Synthetics

132. Christmas Decoration

Materials: tomato and strawberry containers, wire or string, greenery or styrofoam, balls, bells or any Christmas decoration

Decide on arrangement to place in a nest or niche formed by placing two containers together forming an open work box. Spray the containers over paper in the open. Arrange articles in one container. Tie the other one in place. Tiny, colorful balls, bells, metallic ribbons, greenery with red or white berries lend themselves well to this project.

133. Decorated Styrofoam

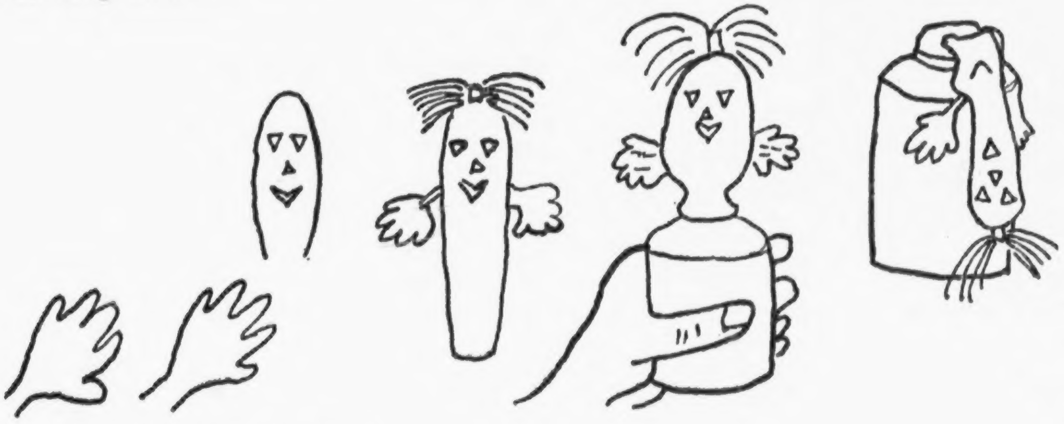
Materials: scraps of styrofoam from florist shops, sequins, colored stars, rhinestones, beads, buttons, glitter or any decorative material, pins, glue

This project may be used at Christmas, Easter, Valentine, etc. Cut styrofoam into shapes that suit occasion and let the children experiment. The teacher could have samples showing possibilities.

134. Johnny Jump-Up

Materials: small rubber balloon, an empty plastic bottle, adhesive tape, threads, cardboard

Stick bits of adhesive tape on the end of the balloon for eyes, nose, and mouth. Color them. Tie a bunch of threads together and tape to the top of the balloon for hair. Cut out a pair of hands from paper or cardboard. Tape the hands to the sides of the balloon. Push the open end of the balloon over the mouth of the empty plastic bottle. Give the bottle a quick, hard squeeze. Johnny will jump up! Stop squeezing and he will drop down.



135. Plastic Bottle Vase

Materials: plastic bleach or detergent bottles which can be obtained from neighborhood laundries, pictures, crayons, paste

Cut off to desired height. Decorate.

Suggestions: When the bottle has a handle, the top can be cut leaving the handle intact. This part can then be set in plaster of Paris which has been poured into a lid. This can be painted with water paint and decorated with seasonal greenery. If desired, the whole object may be sprayed with gold or silver paint.

136. Shakers

Materials: detergent bottles, pictures, small rocks, glue

Soak the bottles to remove labels and any remaining detergent. Either paint or decorate the bottle with a picture. Place 8 or 10 rocks in the bottle and glue the top on to prevent small children from removing the rocks. This instrument is useful in physical therapy.

137. Wrapped Coat Hanger

Materials: wire coat hanger, wool yarn or plastic lacing or used infusion tubing from hospitals

Tie material to the hanger where a tie would be wanted leaving a piece long enough to tie. Wrap around in a simple over and under motion covering the three sides. Keep the wrapping pulled reasonably tight and close together. Tie the end to the piece hanging at the beginning.

Textiles

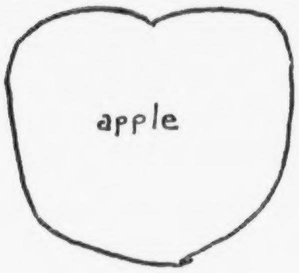
138. Apple Pincushion

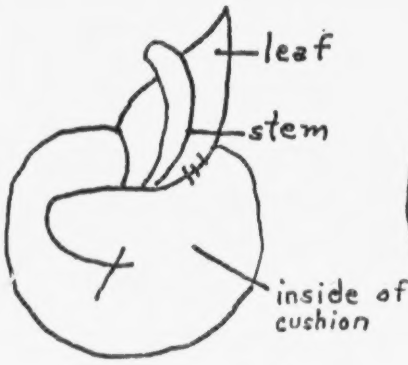
Materials: red felt 5½ in. by 11 in., green felt scrap, brown or black felt scrap, red embroidery floss, kapok, cotton, shredded foam rubber for stuffing

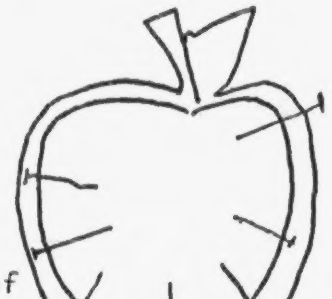
Make a paper pattern of all the needed shapes (apples two sizes, leaf, and stem). Cut out the patterns. Pin the two apple patterns to the red felt, the leaf pattern on the green felt, the stem pattern on the black or brown felt. Trace around the patterns with a sharp edge pencil, remove patterns, and cut out on the pencil lines. Draw a pencil line ¼ in. from the cut edge of the small red apple shape (for sewing line). Fold the black stem (one end) bringing the edges together. Place the stem on the leaf and pin it to the center top of the larger red apple shape.

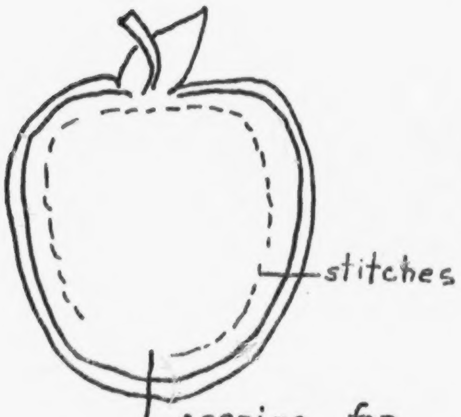
Separate the six strand embroidery floss into two strands and tack the leaf and stem to the apple shape. Use a whipping stitch. Place the smaller red apple shape over the larger one (the stem and leaf in between) and pin it. Sew these two pieces together on the pencil line with a back stitch. Stop sewing within 2 in. of the bottom. Stuff this opening with the stuffing desired. Pin the opening together and finish sewing.

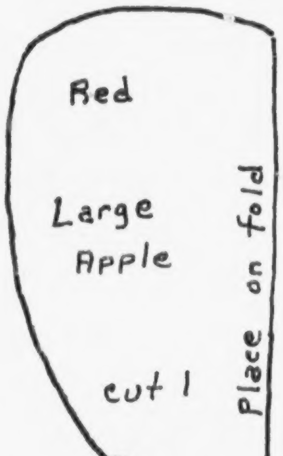
A shoe pincushion can be made by cutting two shoe patterns (with pinking shears) from red felt. Stitch on machine, leave opening at top for stuffing, stuff, then complete machine stitching.

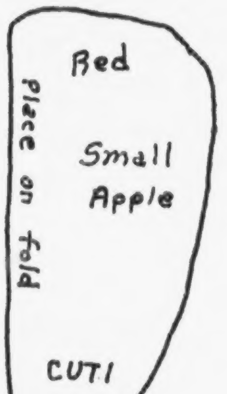


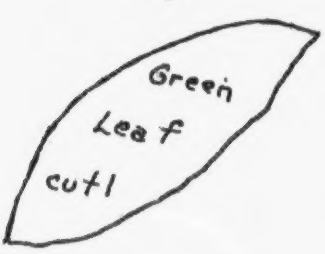

leaf
stem
inside of cushion

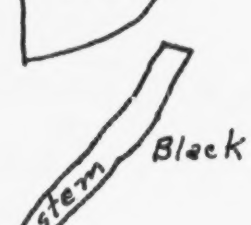



stitches
opening for stuffing


Red
Large Apple
cut 1
Place on fold


Red
Place on fold
Small Apple
CUT 1


Green
Leaf
cut 1


stem
Black
cut 1

139. Apron

Materials: 1 yd. material, thread, scissors, needle, pins, pattern, chalk for marking, tape measure

Fold material in half with selvage edge together. Cut out two apron waist bands and two tie strings 4 in. by 36 in. using the pattern and desired measurement. Cut out apron 22 in. by 17 in. Make ¼ in. hem on each side of apron, a 2 in. hem in bottom of apron. Make 2 rows of gathering ¼ in. apart from the top of the apron. Make 1/4 in. hem on each side of the tie strings and at one end of each tie string. Draw up gathering threads to 18 in. With right sides together sew waist band and facing on curved and short ends, catching in tie strings in the ends. Turn right sides out. Turn under seam allowance on lower edges of waistband and facing and slip gathered edge of apron between waistband and facing. Stitch the three thicknesses together on right side of waistband. Press. Add a pocket if preferred.

140. Backward Bunny

Materials: cloth scraps from the scrap bag or from dressmakers, glue, cotton, drinking straws, construction paper, or any media suitable for mounting

Cut two circles of cloth, one 5 in. and another 2 in. in diameter. Cut two ovals about 2½ in. long for ears. Use cotton for the tail and three drinking straws cut in two for whiskers. Assemble the bunny, pasting or gluing on construction paper.

141. Bells

Materials: small bells, needle, heavy duty thread, thick cotton material such as denim

Cut the cloth into 3 in. widths. Sew the widths into circles large enough for a child to grasp. Sew four bells across one half of each circle.

142. Block Printing

Materials: linoleum block, wood block, sharp knife or carving tool, glue, paint, brush or brayer, blotter or newspapers, fabric or paper

Glue a block of linoleum to a block of wood. Draw a design on the linoleum, then carve the design into the linoleum block. Place the fabric or paper to be printed on a hard firm surface that has been covered with a blotter or newspaper. Now brush paint on the linoleum block or use a brayer to roll the paint on the block. Press the block onto the material to be painted and remove. A design will be left outlining the pattern carved on the block.

143. Burlap Belt

Materials: burlap, needle, yarn or felt, beads or buttons, scissors

From colored burlap cut a belt 6 in. wide, the desired length. Fold in half lengthwise. Turn one edge under ½ in. Fold the other side over it and turn under the cut edge a little more than the first edge. Baste around all four edges. Button hole stitch the long edges with yarn of a contrasting color. Turn the ends under and use a slip stitch to sew them together. Belt may be trimmed with embroidery or felt applique. May have beads or buttons used in a design. For a tie fastener sew yarn strands 5 in. long with knotted tassel on each side of the opening. A hook and eye, loop and button (underneath) could be used as a fastener. Plastic screen wire, bound with bias tape, rickrack, etc., could be substituted for the burlap.

144. Clothesline Hot Plate Mat

Materials: clothesline, wax paper, tempera, varnish, airplane cement, scissors, pins, starch

Cut the clothesline cord 3 to 5 ft. in length. Dip it into very thick starch. Use it while the starch is still warm. Reel the starched clothesline into flat circular coils. (Round or oval shape). Cut the end of clothesline at an angle and secure to the coil with a pin. Press the coil very flat with the palm of the hands and place it on waxed paper to dry (24 hrs. or more). Weight the coil down (between wax paper) if necessary to prevent curling up. If weak or loose places appear, add some fresh starch. When the coil is entirely dry, remove the pin and dab a bit of airplane cement (or glue) at the end of the cord. Paint the dry flat mat with tempera. Make any suitable design. Add two coats of clear quick drying varnish.

145. Cobbler's Apron

Materials: 1 large terry cloth towel, 22½ in. of bias tape to match the towel, scissors, tape measure, thimble, needle, 2 buttons, thread. A sewing machine may be used.

A very novel cobbler's apron can be made from a large terry cloth towel. The stitching on this garment may be done either by hand or by machine.

The front of the apron has two pockets that are made by turning up about 4 in. of one end of the towel. Stitch along the side of the towel and in the middle and this will make two pockets for holding soap, a bath cloth or other articles. Now find the center of the towel by placing the two ends together. Make an 11-in. slit across the center of the towel and bind with bias tape. This provides a hole for the head to go through when the apron is put on. Sew a button on each side of the apron just above the pockets. Make a large loop on each side of the back of the apron to loop over the buttons on the front.

This is a perfect apron for bathing a baby, doing laundry at the sink or washing dishes. It can be used as a gift or it could be sold.

146. Crayon Tapestry

Materials: pencil, iron, pieces of crayons, pressing cloth, needle and heavy thread, unbleached domestic, Indianhead, or any light weight colored material, rod or covered wire coat hanger

Select a design. Map out color area on it. Trace the design on cloth with a sharp pencil. Fill in this design with well-sharpened crayons. Use vertical and horizontal strokes until the desired color tones are acquired. Place material with design between layers of dampened cloth or paper and press with a warm iron. Finish the tapestry with any needle work that gives it a finished appearance. Mount on rod or coat hanger.

147. Dish Cloth or Towel

Materials: a cloth (feed sacks), a design, colors, wax paper, iron

Use a piece of cloth, dish cloth or towel and select a design. The design is traced or drawn on the material. Next, the design is colored as desired. Cover the picture or design with wax paper and press. This makes the design permanent. The final step is to machine hem or hand stitch the hem.

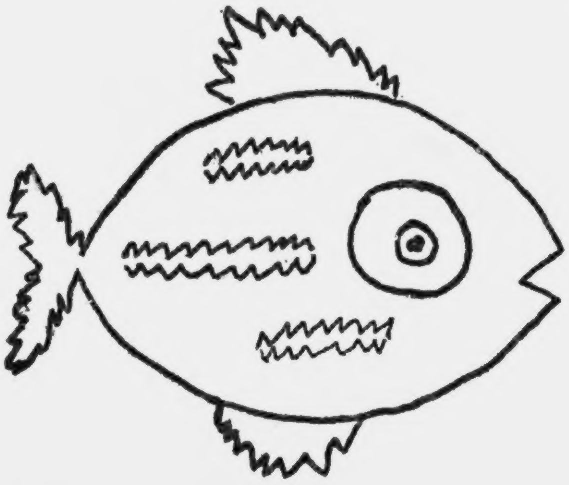
Suggested ideas: Use handkerchiefs or curtains and decorate

148. Fanciful Bookmarks

Materials: scraps of colored felt or construction paper, sequins, embroidery floss (white, green, red and yellow), Elmer's glue, tracing paper, pinking shears, scissors, needles

Trace the fish body and transfer to orange felt or construction paper. Cut out four shapes. Cut the fins, tail, and scales out of green felt. Cut a strip of yellow felt ¼ in. by 10 in. Insert fins, tails and strip between fish shapes and glue together. Glue on scales, yellow felt circles and colored sequins for eyes.

Designs other than fish may be used.



149. Flower Corsage

Materials: scraps of wool yarn of various colors, pencil with rubber eraser tip, scissors

Put a piece of green wool yarn along the length of a pencil, holding it firmly with thumb and forefinger. This will make the stem of the flower.

For the flower petals, wind a piece of red, yellow, purple, blue or any color wool yarn about twenty times around the width of the pencil. Hold one end of the yarn with the thumb which is holding onto the green piece of wool for the stem.

When twenty turns around the pencil have been made hold the other end of the wool which is used for the flower petals with your forefinger.

Gently release the piece of green wool held by the thumb and forefinger and tie the ends together. Slip the pencil out from the petal loops and tighten the knot of the stem. Repeat this procedure until there are about ten flowers. Make the stems for the flower of slightly varying lengths, so that the corsage will not be all stems and a bunch of flowers hanging limply at the end.

150. Guest Towels

Materials: ½ yd. of 45 in. white cotton fabric, 1 spool of 50 or 60 white thread, colored embroidery thread, scissors, tape measure, needle

Cut the fabric into four 11 in. by 18 in. pieces and hem each piece with ½ in. hem. Whip the hem in with either a blind stitch or by the back stitch.

Make a border on each end of the towel by embroidering three rows of chain stitching, each row in a different color of thread.

Repeat this procedure on all four towels and you have an elegant gift for any occasion.

151. Loop Weaving

Materials: 2 or 3 looms and enough packages of loops for the class

Select a loom and as many loops as is required to fill the loom. Stretch the loops from hook to hook across the loom until it is completely covered. Now, with one of the loops begin weaving over, then under, then over, etc., from hook to hook on the other side of the loom. Follow the same procedure as in paper weaving. To take the hot pad off the loom, pull one loop at a time free of its hook and loop under the next one. This is similar to the chain stitch in crochet. Go around the entire square in this manner leaving the last loop free to hang the hot pad by.

Suggestion: Several hot pads may be sewed together for a rug, bathmat, or place mat

152. Place Mats

Materials: 2/3 yds. of 36 in. fabric, preferably Indianhead, linen, denim or some other rather heavy material, embroidery thread in white, yellow and green, thread to match color of material, scissors, tape measure, needles for sewing and embroidery, pencil and tracing paper

Cut four 18 in. by 12 in. pieces and hem each piece. On each place mat trace a daisy design or some other suitable design to be embroidered in the upper right hand corner. The stems of the daisies are made with the outline stitch and the leaves and petals to the flowers are made with the daisy stitch.

153. Pocketbook

Materials: a piece of felt fabric 25 in. by 25 in., cardboard 5 in. by 5 in., 30 in. of grosgrain ribbon, scissors, tape measure, razor blade in holder, chalk, safety pins and glue

Cut a circle with a diameter of 25 in from the felt. Cut a 5 in. diameter circle from the piece of cardboard. Glue the piece of cardboard to the center of the felt circle. One and one-half in. from the edge of the felt circle mark with chalk ½ in. long lines that run up and down the material, one every 2 in. Cut through these marks with the razor blade. Pin a safety pin in one end of the ribbon and run through these slits in the circle going in one slit and out another until the ribbon has gone around the circle two times. Sew the ends of the ribbon together and pull on a piece of the ribbon from each side of the bag to cause the draw string bag to close.

154. Sachet Gift

Materials: net, ribbon odds and ends, sequins, beads, etc., sachet

Make a small bag by gathering the edges of a round piece of net with the fingers. Fill this with sachet and tie with ribbon. Decorate with any small articles that will glue or tie on. A small bunch of flowers adds to the finished product.

Suggestions: Dried rose leaves or spiced leaves may be used instead of sachet. The rose leaves may be collected at home.

155. Stenciling

Materials: 1 X-Acto knife or single edge razor blade, stencil brushes (1 for each color), stencil paper, cardboard, crayons or colored pencils, textile paints, fabrics, masking tape or thumb tacks or pins, rubber cement, wiping cloth and turpentine for cleaning brushes

Launder fabric to be used to remove all sizing. Gently stretch area of the fabric to be stenciled over a piece of cardboard and hold in place with thumb tacks, tape or pins. Place the stencil design on the fabric in the correct position. Hold stencil sheet in place and dip stencil brush into paint. On scrap of paper work paint into brush before applying to the design on cloth. Use an up and down motion (Do not use brush strokes). Dab paint into cut out portions of design. Allow material to dry for 24 hrs. Iron on reverse side of fabric, then launder.

Some articles to decorate with Textile Paint: tea towels, curtains, hot pads, aprons, lamp shades, wastebaskets, bath mats, bath towels, face cloths, curtains, Christmas cards, greeting cards, scrapbooks, luncheon cloths and napkins, blouses, T shirts, jackets, baby bibs, etc.

156. Stuffed Toys

Materials: scraps of cotton prints, calico, gingham, oil cloth, felt, muslin, man's socks, cotton ticking, flour and feed sacks, upholstery material, etc., yarn or twine (for manes or tails), buttons (for eyes or other decorations), needle and thread, stuffing (kapok, cotton, foam rubber flakes)

Cut pattern of ginger bread boy from paper. Place pattern on cloth and cut two cloth pieces. Sew the two cloth pieces together (wrong side outside). Leave small space for stuffing toy. Fill with stuffing and finish sewing. Make features with buttons, bits of thread, colored crayons. Tie bow around the neck.

Patterns for animals may be bought or made.

157. Weaving (Loom)

Materials: Todd adjustable looms and needles, macrome cord or any carpet yarn

Decide on the size of the mat to make. To string the loom remember to string double the string on both edges so the selvage will be strong. Thread the needle, a flat piece of wood long enough to go across the loom with an eye in one end. When the cord is used up, pull to under side to tie to new piece of cord. (Plain instructions come with each loom.)

Woodwork

Since most of the projects listed in this book under the media of wood are finished in much the same way, it seems practical to give one explanation at this point and eliminate duplication in the following projects.

Where patterns are given for the article to be made, it is best to trace the general outline of the pattern on the wood by using carbon paper between the pattern and the wood. Care should be taken to observe any directions on the pattern that relate to placing the pattern on the grain of the wood.

Cut the wood with a coping, hand or jig saw. This will of course depend on the thickness and length of the wood and upon the saws that are available for use.

After the wood has been cut the rough edges should be worked with a wood rasp. It the wood has holes or flaws that cannot be taken out by sanding these should be filled with plastic wood and allowed to dry.

It is now time to give all the wood surfaces a good sanding with coarse sandpaper, then follow with a thorough sanding with fine sandpaper. Pupils usually respond properly to sanding if they are directed to sand until the board is "as smooth as the face."

If further designs are to be used on the wood they should be drawn or traced on at this time. Woodburning or coloring may now follow if either of these methods is desired.

The design may be colored with wooden coloring pencils which come in a wide range of colors or water colors. More intense colors are obtained from the wooden coloring pencils by dipping them into water or by dampening the wood area that is to be colored. A soft, worked into the wood, effect is achieved when the pencils are not dampened until after the pattern is colored and the entire design is then brushed over several times with a brush moistened in turpentine.

The wood is now ready for its first coat of shellac, varnish, lacquer or sealer. If shellac or varnish is used the first coat should be allowed to dry thoroughly and then be lightly sanded or rubbed with steel wool before a second coat is applied. If a dull satin finish is desired the second application should be rubbed with steel wool after it has dried. The wood can then be waxed with a good grade of paste wax and hand rubbed. If a glossy finish is preferred then it is not desirable to use the steel wool after the second application of finish, nor is the waxing necessary. One may want to use more than two coats of finish for a higher gloss. Since the lacquer and sealer are now available in spray containers the wood may be sprayed and when dry, sprayed a second time to give a better finish.

When using prepared wood stains the lightness or darkness of the stain can be varied by the use of turpentine.

For light, brilliantly colored finishes where the wood grain is to show through, use regular household enamel, greatly reduced by turpentine and applied with cotton or a soft rag.

158. Bamboo Place Mat

Materials: saw, knife, lacing, sandpaper, shellac, bamboo

Select old growth bamboo according to size desired. Saw bamboo into 18 in. lengths and place on flat surface, arranging them to fit. Lace together with a loop stitch using plastic or leather lacing. Small wire can also be used. Trim rough edges with sharp knife and then sandpaper. Varnish entire mat or shellac with white shellac.

Suggestions for wood: furniture for room made from crates and wooden boxes, book ends from wood scraps, key hangers (cut wood shape of key. Put planter on large end and hang keys on hooks extending down the key.)

159. Bells

Materials: small bells, wooden sticks about 5 in. long, 1 in. wide and ½ in. thick, ¾ in. nails, wire

Sand and paint the sticks. Nail three nails on each side of each stick. Attach the six bells with wire.

160. Blocks

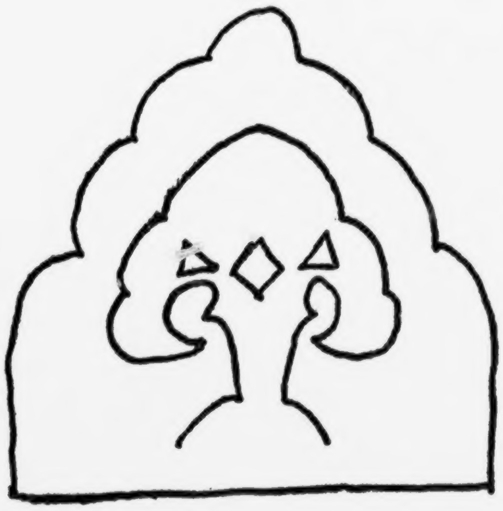
Materials: blocks approximately 5 in. long, 2½ in. wide and 1 in. thick, old shoe leather, paint, tacks

Sand the blocks until smooth. Paint them. Cut the leather into 1 in. strips. Use leather for straps long enough for a student's hand. Attach to one side of the block

161. Book Holder

Materials: scraps of plyboard, saw, glue, small nails, hammer, punch, plastic wood, fine and coarse sandpaper, shellac, paint brush, colors, a wood burning tool

Cut two pieces of wood into the shape of the pattern given. These pieces are the ends to the book holder. Now cut a long strip that measures as wide as the ends of the book holder (7 in.). This strip can be as long or short as you desire since everything depends on the number and thickness of the books that it will hold. Glue each of the straight ends of the book holder to the long piece of wood that forms the center, one at each end. A few small nails may be needed to hold the pieces together. If nails are used, they should be countersunk by hitting a punch that has been placed over the head of the nail. After the nail has been driven as far as it will go into the wood, fill the holes with plastic wood, sand and finish according to the directions given in "Wood Finishing." The design may be duplicated, wood burned, and then colored.



162. Decorated Coat Hangers

Materials: wooden coat hangers, water or rubber base paint, 1 in. brushes and overall aprons. Poster paint can be used if the finished product is rubbed with paraffin or liquid wax.

Using basic colors desired, paint hangers and hang on a line or pole to dry. Since water or rubber base paints are easily washed from hands or brushes, they are more desirable. Workers should be protected from paint. This is a good outdoor project.

163. Drum Sticks

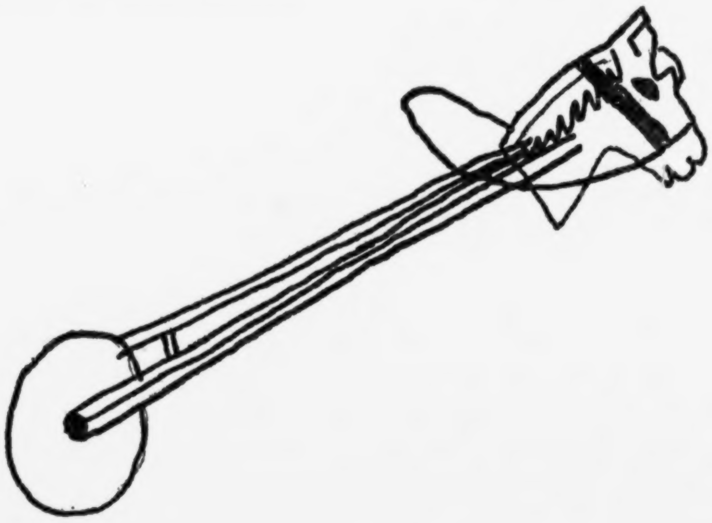
Materials: small rubber ball (sponge), sticks 1 and ½ ft. long, paint

Sand the stick until it is smooth. Paint it. Make a small hole in the ball to insert the stick. Put glue on the stick and in the hole. Force the stick into the hole. Allow to dry before using. Tape may be used to fasten the stick on after inserting it into the ball instead of gluing.

164. Hobby Horse

Materials: picture of the horses head to be traced, heavy cardboard or light wood, glue, paint (black, white, gray). Two sticks of wood (right length and size for the owner), piece of broom handle (axle), a wheel cut from wood, square block of wood, nails, hammer, saw, oil cloth

Make tracings of the horse's head on the cardboard (2), and glue the two heads together. Paint head gray, mane white, and eyes black. Cut a wheel from wood, bore a hole at the center large enough to accommodate an axle to be attached between the two sticks of wood. Cut a block large enough to keep a space for the wheel, nail block and axle in place and paint gray. When dry, attach head. From oil cloth cut a bridle and reins and attach to hobby horse.



165. Indian Tom-tom

Materials: block from a tree about 8 in. in diameter, animal skin or inner tube, stick 12 in. long, heavy cord or wire, chisel, hammer, brace and bit

Cut block about 10 in. long. Hollow out using brace and bit to start and complete work with wood chisel and hammer. Leave outer shell about 1 in. thick. Stretch animal skin or inner tube over each end securing with cord or wire.

Cut stick 12 in. long. Sand smooth. Wrap the end of the stick with strings torn or cut from cloth until a tight ball is formed. Cover with inner tube stretched tightly. Tie securely.

166. Letter Holder

Materials: thin plywood 2 in. by 4 in., wallpaper, paint, tacks, hammer, heavy cardboard 3 in. by 5 in. (two for each holder)

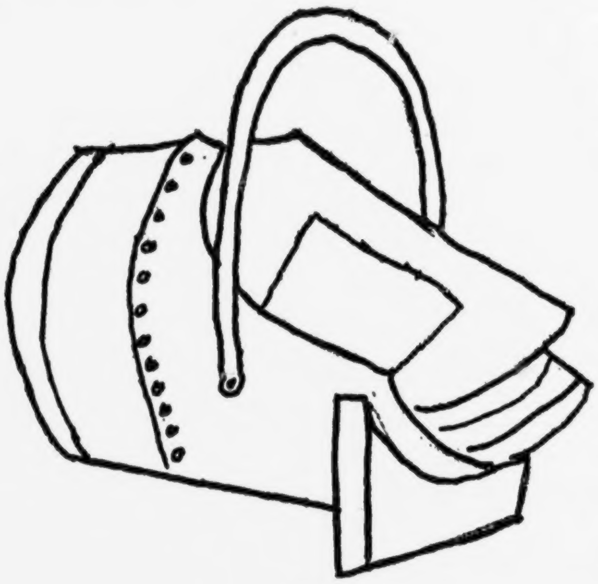
Cover or paint cardboard for sides. Tack to plywood (thumbtacks should do the job). Decorate, if desired, with small paste-ons.

Suggestions: If a napkin holder is desired, make decorations from fruit, foods or any other appropriate subject.

167. Nail Keg Scuttle

Materials: keyhole saw, hammer, tin snips, 1 in. paint brush, hand drill, 1/8 in. twist drill, pencil, paint or stain, round or flat plastic lacing, coarse and fine sandpaper, nail keg, end of orange crate

Remove the nails from the metal rim which supports the open end of the keg. With pencil sketch the area of the wood to be removed. Using keyhole saw carefully cut along the penciled lines. Use the sandpaper to smooth the cut edges. Sand the outside of the keg to remove the splinters and rough places. The end of the orange crate will supply the material for the front supporting leg. Trace the shape of the leg to the wood and cut with saw. Use sandpaper to smooth. Place the keg in position on the leg and nail from inside of keg. Cut the overlapping joint from the metal rim removed from the top of the keg. Drill a small hole ½ in. from each end of the metal rim. Place the rim in the position of the handle and nail to keg through the holes in the end. Bend nail down on the inside. Wrap the rim with lacing in desired color. Paint or stain entire keg as desired.



168. Pencil Holder

Materials: small fruit juice cans, sticks, glue, shellac, rubber bands, small pictures or paint for decorating

Glue sticks around the fruit can holding them in place with a rubber band until the glue dries. Use small cut-outs from seed catalogs, magazines, etc., to paste on. Shellac for more durable finish.

Suggestions: Make picture frames for small pictures by using sticks arranged at right angles to one another in a square.

Sticks may be decorated for Christmas tree decorations.

169. Plywood Cutouts

Materials: plywood or veneer object, precut, toy hammers, nails, Celotex or sheetrock

Precut various forms from plywood and drill holes in each one. Shapes may be squares, circles, triangles, strips, trees, cars, etc. Construct a scene or picture from pieces by nailing them to the Celotex.

Suggestions: Other cutouts may have holes all around the edges to be used for simple lacing.

170. Plywood Tray

Materials: circle of ½ in. or 5/8 in. plywood (Scraps may be obtained from lumberyards), 5/8 in. rope, pencil colors, Water Lok, shellac,1-in. headed nails, carbon paper, brush

Cut circle about 15 in. in diameter. Trace design onto wood using the carbon paper or draw a free hand design. Mexican or Indian motifs are excellent on this tray. Color the design with pencil colors and seal it by brushing lightly with turpentine. Then shellac the entire surface. A substance called Water Lok may be used in place of the turpentine and does not cause the colors to run. When the tray is dry take about 5½ ft. of rope and join by splicing with heavy fishing twine. Also wrap opposite side of rope with twine so the sides will look alike. Now nail the rope around the tray, looping it on sides of tray for a handle. Be sure to shellac rope also.

171. Popsicle Box

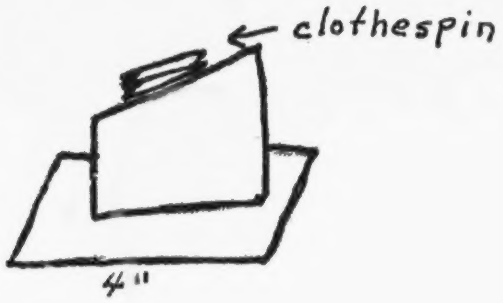
Materials: popsicle sticks, glue

Use number of popsicle sticks needed to make the desired size bow. These are glued together to form the bottom of the box. The sides are formed by alternately placing the sticks around one side at a time until the depth is obtained. The top of the box is made like the bottom adding a bead for a handle. A variation may be to make the box in the shape of a house, etc.

172. Recipe Holder

Materials: plywood pieces, 1 spring type clothespin, paint, wood glue, sandpaper

Precut plywood pieces. See illustration. Sand the two pieces. Paint or use in the natural finish. Finished product may be sprayed with shellac. After sanding and painting glue the odd shaped board (a) to the rectangle (b) so that the slanted side is up. Glue the clothespin on the slant in such a position that it can be opened and closed and so that a card can be held by the pin in a reading position.



173. Rhythm Sticks

Materials: 2 sticks 8 in. long and ¾ in. in diameter, paint, sandpaper (Maple or dogwood dowels are ideal but sticks can be peeled and whittled.)

Sand the sticks until they are smooth. Paint them.

(Rhythm sticks may be used as drum sticks for the box and can drums.)

174. Sand Blocks

Materials: 2 wooden blocks approximately 5½ in. long, 4 in. wide and 2 in. thick, 2 pieces of emory cloth or rough sandpaper 5¼ in. long and 6 in. wide, paint, 2 large spools, 2 large nails or screws, thumb tacks or carpet tacks

Paint the blocks and spools different colors. Tack the sandpaper or emory cloth on the blocks with thumb tacks or carpet tacks. Nail the spools on the backs of the blocks for handles, being sure the heads of the nails are larger than the holes in the spools.

175. Santa Claus

Materials: straight clothespins, red paint, brushes, cotton, red fingernail polish, ink, pipe cleaner

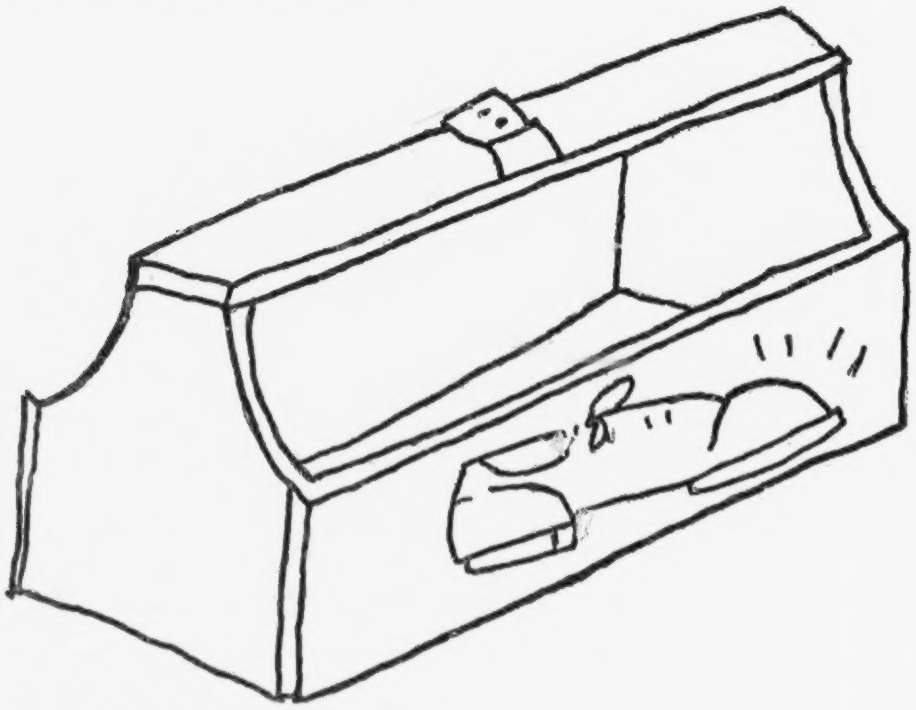
Paint the clothespin red leaving a free space just under the head of the pin. This unpainted section will be the face. Draw the eyes in ink. Paint a red nose and mouth with a round red spot on each side for cheeks. Use a fingernail polish brush to do this. When the paint has dried, paste cotton around the face and on the back of the head for hair and whiskers. Slip a pipe cleaner through the slit in the clothespin for arms.

Suggestions for other clothespin figures: Children of other lands may be made most effectively in this manner.

176. Shoe Shine Box

Materials: a piece of board ½ in. thick, hammer, nails, screws, screwdriver, glue, wood burning tool, wood colors, paint brush, shellac (Plyboard may be used instead of board.)

Cut bottom ½ in. by 6 in. by 10 in., 2 sides ½ in. by 4 in. by 11 in., heel stop ½ in. by 1 in. by 2 in. Saw pieces to size and shape. Smooth with wood file and sandpaper. Glue and screw pieces together. Put design on box, woodburn, color, and shellac.



177. Something Nice for the Birds

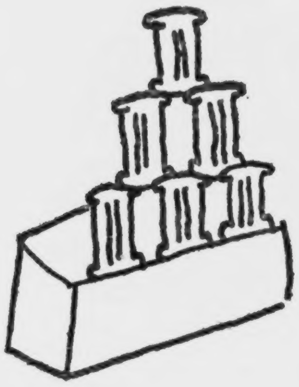
Materials: funnel (medium sized), peanuts (unshelled), heavy thread, large needle, 3/8 in. doweling (approximately 5 ft.), screw eye, block of wood, paint and brush

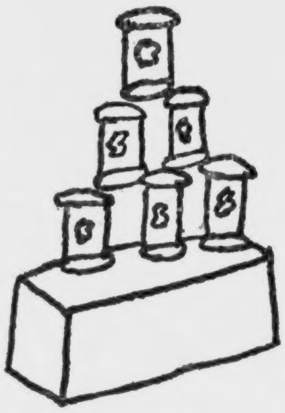
Punch holes through the rim of the funnel. String 4 or 5 peanuts on each string. Attach strings through the punched holes. Make holes on all four sides of the block of wood. Glue and insert dowels of same length in each hole (about 7 in.). Make hole in the center of the block of wood. Insert longer section of doweling into hole in the center of the block (glue in). Invert funnel with peanuts over the center dowel. Add the screw eye in the center of dowel at the top of dowel so that the feeder may be fastened to a branch of a tree. Paint funnel, block and perches in desired colors.

178. Spool Book Ends

Materials: 6 large spools, wood glue, 2 blocks of wood, paint, design, shellac

Saw six large spools in half (lengthwise). Glue three of the cut halves directly onto the block of wood with the cut sides flush with the edge of the block. Glue two more cut halves over the three cut halves, glue one more cut half over the two (stairstep fashion). Do the same thing with the remaining block and cut spools. Decorate, paint and shellac.





179. Spool Counter

Materials: 10 spools (preferably the same size), heavy cord and 2 rings, buttons or any objects which will prevent spools from slipping off

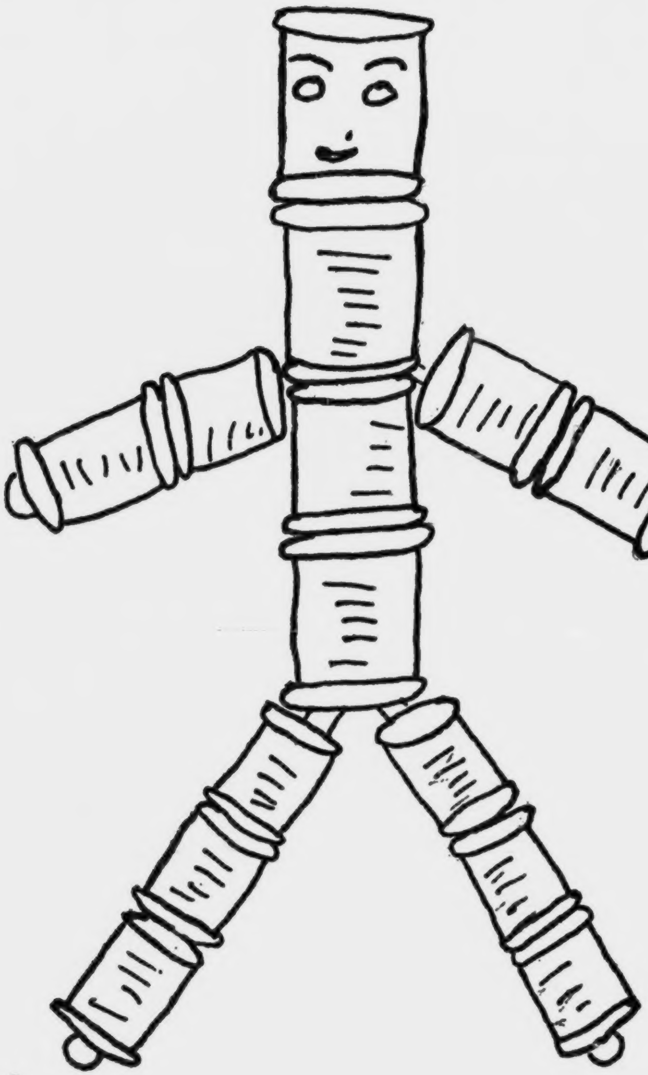
Fasten cord to ring, button, etc., and string spools in this order: one white, red, orange, yellow, green, blue, purple, brown, black, white and the second ring. Fasten so spools will stay strung.

Other suggestions: Spools may be combined with construction paper, cardboard tagboard, etc., for making doll furniture. Cigar box tops make nice tables with spools for legs. The tops of some egg cartons can be cut to make chairs, couches. Candy boxes can be used for doll beds using spools for legs.

180. Spool Doll

Materials: elastic or heavy cord, 2 carpet needles, 5 large buttons with large holes, 1 large spool, 3 medium spools, 10 small spools

Lay the spools in position (see illustration) and get a rough measure of the running length of the spools. Double this amount and add a foot. Cut the elastic and thread each end with a carpet needle. Put a needle through each side of the button and string through the large spool with both needles. Separate the needles and string the small spools on each needle. Run through a button and back through the two small spools. Put both needles through the three medium spools and separate them for leg stringing. String each needle through three small spools and through a button and back through the button and three spools. Fasten by tying securely.



181. Tie Rack

Materials: precut dowels 12 in. long and ½ in. in diameter, water paints, brushes, yarn, ribbons or gimp

Paint the dowels. When they are thoroughly dry, tie ribbons or some other tying material to ends for hanging.

182. Toy Locomotive

Materials: 12 in. by 46 in. plank, 4 casters, apple box, well sanded nail keg, one 12 oz. juice can, funnel, small triangular blocks, six coffee can tops for wheels, black and gold paint, canvas covered pillow (11 in. x 9 in.), hammer, nails

Mount the large plank on the casters, place the nail keg up front for the engine, cut a window in the apple box, then mount the box behind the engine. With hammer, nails and blocks secure the keg and apple box to the plank. Secure the juice can and funnel with a wire to the engine, add wheels and paint.

183. Wood Brush

Materials: knife, strong cord, fresh cut wood of ash, witch-hazel or sassafras trees

From piece of wood approximately 1 in. in diameter cut a piece 6 in. long. Trim away the bark. With the knife peel back a small strip about 2 in. Peel around the stick in that same manner until center of stick is reached. Place glue on the handle and wind the cord around it down to the brush.

Possible substitute could be pine straw secured to triangular piece of wood and bound with tape.

Miscellaneous

184. Bells

Materials: small bells, small wire, potato masher

Attach 4 or 5 bells to a metal potato masher.

185. Ceramic Tile Earrings

Materials: small ceramic tile about ¼ to 3/8 in. thick, airplane glue, small enameling kiln, various colors of enamel glaze, earring backs

Wet the surface of two tiles and sprinkle them lightly with the colored enamel glazes. It is better not to cover the entire surface. Place the tile in the kiln until the enamel turns to liquid glass: allow to cool slowly to avoid cracking the tile. Glue the earring backs to the reverse side. Make sure that over half the weight of each tile is below the center of the earring back. Allow to dry.

186. Cork Hot Plate Mats

Materials: bottle cork liners, cardboard disks, glue, rubber base paint or water colors

On disks about 4 in. in diameter, glue liners, first to outer edge and work to center. Repeat on reverse side. Allow the mat to dry and paint.

Suggestions: Place mats may be made in the same way. Use a rectangle of cardboard. Attach corks only on one side. Proceed with painting when dry.

187. Cymbals

Materials: pot lids with handles, paint

To give a muted sound, paint the lids.

188. Drum

Materials: wooden nail keg, paint, rubber inner tube, sandpaper, wire

Remove the metal band from one end of the keg. Sand the keg until smooth. Paint and decorate as desired. Cut a circle from the inner tube about 3 in. larger in diameter than the top of the keg. Tightly stretch the rubber circle across the top of the keg using the wire to secure. Finish with the metal band. Be sure to remove only one end of the keg.

189. Gesso

Materials: pencil, brush, hairpins, toothpicks, leather tools

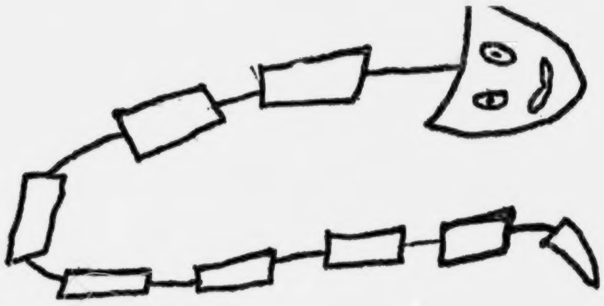
The design is first traced or sketched lightly with soft pencil. The design is outlined in Gesso. Then full brush loads are stippled on. Little spots or beads are dripped on. Mistakes may be wiped off with damp cloth when Gesso is still wet. Rough parts may be scraped with knife when Gesso hardens. If water colors are used, a coat of shellac or clear varnish should be given them to hold down color. Oil paint may be used.

Gesso can be used to decorate picture frames, jewelry boxes, candle holders, book ends and many other things.

190. Gollywompus

Materials: rubber jar ring, needle, thread

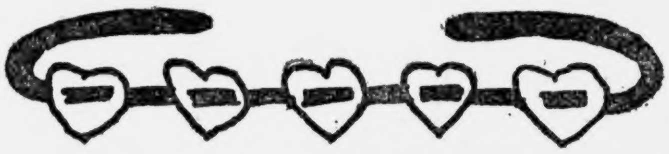
Cut the rubber jar ring into small pieces. If the ring has a tab on it, use this for the head; otherwise, cut a head with a point. Draw eyes and mouth on the head. The tail should be cut in a point. Thread a needle with heavy thread. Start sewing the pieces of ring together beginning with the head. Leave a small strip of thread between each rubber piece. This will make the body of the gollywompus. Sew on the tail and knot.



191. Inner Tube Articles

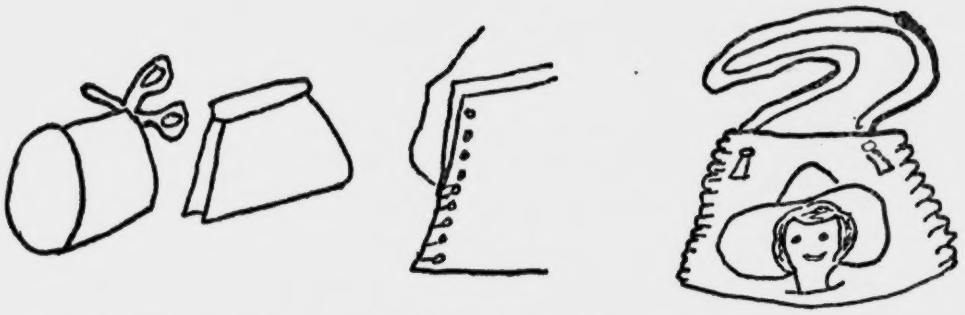
Materials: inner tube (large truck size is best), scissors, enamel paint and brush, ribbon for belt, bracelet and necklace, yarn for purse or pillow

For a bracelet, belt or necklace, cut from inner tube as many hearts as needed, using small hearts for necklace or bracelet. Paint the hearts with red enamel. Cut two parallel slits in center of heart and run red ribbon through the slits. Other seasonal patterns such as leaves, flowers, etc., may be used in place of hearts.

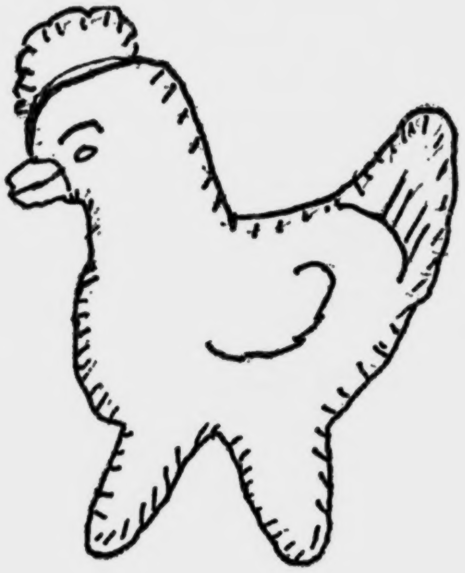


For purse, cut off piece of inner tube desired size for purse. Enamel, cut across the top and punch holes along sides of purse with paper punch.

Lace sides with yarn. Use heavy cord for handles. To attach handle, punch holes in top of purse (each side). Put cord through holes and tie in a knot to hold in place. Design may be painted on purse if desired.



For rooster pillow, place pattern on inner tube and cut two pieces. Lace with cord or yarn. Holes may be punched with paper punch or large needle may be used. Stuff with foam rubber flakes. Outline feathers and features with enamel.



192. Nail Chimes

Materials: wooden dowel, uneven lengths of string, different sizes of nails (the larger the better both for ease of striking and sound—7 or 8 nails).

String nails along a wooden dowel on uneven lengths of thread. Space them about 3 in. apart for clear striking. Use a single large nail for a striker.

193. Peg Boards from Accoustical Tile

Materials: leftover pieces of tile from building contractors, toothpicks or match sticks, pegs, etc., string, glue

a. Counting Boards—Boards with evenly spaced holes are cut so that there are ten holes in a row for counting to ten or by tens. Pegs or substitutes are used in learning to count.

b. Free Form Figures—Using toothpicks or match sticks the child experiments to see what he can make. If desired, colored cord or string can surround the sticks to make a design and be glued down for a picture.

194. Photography Play

Materials: cardboard box for photo box, a dark cloth to cover it, paper for drawing, colors or pencil, articles of clothing, hats, ornaments, etc.

One child is the photographer. He poses the subject to be photographed and takes the picture. The others draw the picture as they see it. Two or more pictures may be drawn on the same day and the project repeated later with different performers.

195. Purse Decoration

Materials: old handbag (Smooth surfaced textures are best.), old jewelry, beads, sea shells, artificial flowers, etc.

Arrange the design first on paper cut the size of the purse. Transfer the design to the purse, using glue or needle and thread. Cover with clear lacquer, using small brush.

196. Soap Fun

Materials: a piece of chalk, piece of dark construction paper, whipped Ivory soap flakes, raisins

Draw a bird on the sheet of dark construction paper. Fill in the drawing with the whipped soap flakes. Use the raisin to make the eye.

197. Shaker

Materials: metal buttons, wire and adhesive tape

String metal buttons on a piece of wire about 12 in. long. Twist ends together and tape. Buttons may be separated by beads.

Substitutions: Metal guards that are used under roofing nails would be larger and have a more metallic sound.

198. Shoe Planter

Materials: a pair of the student's baby shoes or early high top shoes, (These must be leather. A substitute might be one of father's high top work shoes.) colored enamel, shoe laces

First, clean the shoe thoroughly. Let it dry completely and then coat with enamel. Allow this to dry and add another coat. Place shoe tongue where you want it as this coat should harden the shoe. If it does not, use another coat of paint. When shoe is dry, add shoe laces. If you are using baby shoes you might insert small artificial flowers. These may be nailed to a wood base. If the large shoe is used, blacken the sole with shoe polish and insert proper size of can to use as a planter.

199. Tambourines

Materials: embroidery hoops, bottle caps, yarn or fasteners

Using a small bit, make holes through the hoop and proceed to fasten the caps on as in directions for tambourines from metal pie pans (#32).

200. Triangle

Materials: horseshoes, rail spikes or large nails, heavy cord

Suspend horseshoe or spike from heavy cord. Strike it with large nail.

201. Wax Flowers

Materials: a tree branch, small flowerpot, pebbles, old candles, raw carrot, juice cans

Arrange a tree branch in a small flowerpot filled with pebbles to hold it firm. Melt old candles in small juice cans, and place in a pan of hot water over a slow flame.

Shape the end of a raw carrot to the desired shape and size. It may be cone-shaped or cup-shaped. Dip the shaped end of the carrot in a glass of cold water, then into melted wax. Dip again in cold water so wax will set faster. The deeper the carrot is dipped in the wax, the larger the flower will be.

When the wax has set, twist it slightly to loosen, and remove it from the carrot. If the wax is cone-shaped, press the point around the branch. If cup-shaped, press it firmly to the branch. Practice will help in finding the correct temperature.

Small flowers may be placed inide large ones for an interesting double effect. Flowers may be pressed into different shapes while warm.

These wax flowers may be combined with fresh flowers or potted plants. May be used in a nut cup for table favors.

Suggestions: Wax grapes and other fruits may be made in the same manner.

CHAPTER III
RECIPES

Clay (Cornstarch)

Mix dry ceramic clay with mineral oil (may use cooking oil or light weight motor oil, the latter may have an odor) to consistency needed. For color use dry tempera mixed with the clay before adding the oil. Knead in heavy plastic bags.

Clay (Cornstarch)

½ cup cornstarch
1 cup salt
1 cup boiling water

Boil to a soft ball stage and knead on wax paper until malleable. Wrap in foil.

Clay (Flour)

1 cup flour
1 cup salt
1 rounded teaspoon powdered alum

Add water slowly and knead until a clay-like consistency is reached.

(The cornstarch and flour clays may be wrapped in a wet cloth to keep a few days. They may be handled exactly like clay. They may be pressed on maps to make a relief, and when dry they may be painted. They will not crumble. For colored mixture, add powder paint to the water when mixing.)

Finger Paint (Cornstarch)

1 cup cornstarch
1 qt. boiling water

Dissolve the starch in a small amount of cold water and gradually add the hot water. Cook until clear.

Finger Paint (Flour)

2 cups flour
1 cup sugar
1 cup cornstarch

Mix ingredients to thick heavy paste in cold water. Pour in enough boiling water to make a thick heavy starch, stirring constantly until clear.

(To keep the cornstarch and flour finger paints from drying, add 2 tbs. glycerine. Add oil of cloves or wintergreen to keep from souring. For color use poster paint, India ink or powdered tempera mixed with water to a consistency of a smooth paste.)

Finger Paint (Quick)

For a quick solution use liquid starch. After starch is poured on paper sprinkle tempera powder onto starch, mix with hands. If solution dries too quickly sprinkle a few drops of water on paper.

Flour Paste

1 cup boiling water
1 T. powdered alum
1 heaping tsp. oil of cloves
1 pt. flour
1 pt. cold water

Put one cup of water in to boil. Add alum, mix flour and cold water until smooth and pour mixture gradually into boiling water. Cook until it has a bluish cast, stirring all the time. Remove from fire, add oil of cloves and stir well. Keep in airtight jars. Thin when necessary by adding water.

Flour and Salt Recipe

Mix equal parts of flour and salt with enough water added to make a creamy mixture. Do not heat. Place on fairly solid surface such as beaver board or heavy cardboard. Mixture will harden and set. Beads can be molded from mixture. Roll into shape. Thread on large needle or slender stick. Paint when dry. Mixture may be tinted with tempera before molding.

Gesso

(Part One)
10 tbs. of whiting mixed with water to a thick cream
6 tbs. of liquid glue

(Part Two)
1 tbs. varnish
4 tbs. linseed oil

Stir part two into part one and boil for 10 min. in a double boiler. It is sometimes better to stir the linseed oil in after the gesso has nearly finished boiling. Pour gesso, when cooled slightly, into an open-mouthed bottle and cork well. This keeps it in good condition.

Goop (A modeling medium, substitute for clay)

2 cups salt
1 cup cornstarch (loose)
Food coloring, paint or nail polish and shellac

Mix salt and 2/3 cup water in saucepan, stirring until mixture is well heated, 3 to 5 min. Remove from heat and add cornstarch which has been mixed with ½ cup cold water. Stir quickly. Mixture should be consistency of stiff dough. If mixture does not thicken, place over low heat and stir about 1 min. until it forms a smooth pliable mass. Leave the mix white or divide and add food colors until desired brilliance is achieved.

Modeled objects may also be painted or decorated when dry to give surface color. Mix can be kept indefinitely if wrapped in clear plastic wrap or foil.

Makes 1 and ¾ lb. No refrigeration is necessary. Dry at room temperature 36 hrs., depending on thickness of objects.

Mosaics

Sand or bird gravel may be colored with food coloring. Put in aluminum pie pan, mix and heat.

Sawdust may be sifted into four grades, each grade divided into as many parts as colors desired. Put each into a separate plastic bag, add food coloring, a few drops at a time, and work into sawdust until desired brilliance is achieved. This will lump if too damp.

Paper Maché

Tear newspaper into fine strips. Soak for 24 hrs. in non-rusting container. Squeeze out water and to pulp add flour paste or laundry starch, either dry or cooked. Starch is better.

Paste (cornstarch)

2 tbs. cornstarch
Water

Add enough cold water to make a smooth paste. Add boiling water until the mixture turns clear. Cool until it thickens and remove from the fire. This paste becomes thicker as it cools. It may be thinned with water. Use cornstarch paste on tissue paper or thin cloth since it is less likely to show than flour paste.

Plaster of Paris

Pour 1 part water in a pan, then pour 2 parts of plaster of Paris (1 at a time). Use food coloring to color mixture (or tempera). Stir until mixture is a thick cream stage and pour into greased (mineral or cooking oil) cardboard boxes or lids. One or two tbs. vinegar will prevent drying too quickly. Place hairpin, paper clip or wire hanger in back before it hardens.

Sawdust (Modeling)

3 cups sawdust (fine)
1 cup wheat paste
Water

Add enough water to mix the ingredients. Do not make it too stiff.

Sawdust (Texture)

Sawdust
Powder Paint
Water

Mix powder paint with water to thin cream consistency. Spread over sawdust and stir well. Spread on a newspaper to dry. Use to sprinkle on a glued surface for textured effect.

CHAPTER IV

A. SUGGESTED ARTS AND CRAFTS EQUIPMENT AND SUPPLIES

Equipment for Level I

Brushes
Craft Instruction Books
Coping Saw
Desk Shears
Easel
Hot Plate
Hammer
Knife
Mixing Bowl
Muffin Tins
Paper Punch
Rolling Pins
Rulers (12" and 6")
Scissors
Staplers
Tin Snips
Water Basins
Weaving Looms
Wood Rasp
Yard Stick

Additional Equipment for Level II

Cake Tins
Cookie Cutters
Electric Iron
Pliers
Vise

Additional Equipment for Level III

Carpet Needles
Cellophane Tape and Dispenser
Containers for Mixing
Ironing Board
Picture Chart Rack
Washboard
Work Tables (Suitable height)

Additional Equipment for Level IV

Aluminum Tooling Kit
Brace and Bits
Cookie Sheet
Leather Tooling Equipment
Measuring Tapes
Plane
Screw Driver

Additional Equipment for Level V

Art Brushes
Bevel Machine
Level
Paint Brushes

Cup Hooks
Double Boiler
Electric Drill
Files and Wood Rasp
Foot Tub
Hand Saw
Jig Saw
Paper Cutter
Picture Hangers
Sanding Machine
Sewing Machine
Steel Tape Line
Wood Burning Tools
Wood Miter Box

Supplies for Level I

Absorbent Cotton
Balloons
Bar of Soap
Beans for Bean Bags
Birthday Candles
Brads
Brass Paper Fasteners
Carbon Paper
Cellophane Tape
Christmas Tree Balls
Dye for Coloring Eggs
Eraser
Fasteners
Flour
Flower Pots
Food Coloring
Gimp (Shoe strings)
Glue (Wood)
Gold Stars
Gummed Paper
Gummed Stickers (Stars, etc.)
Household Cement
Ice Cream Sticks
Clay
Colored Chalk and Yellow Chalk
Colored Felt
Colored Inks
Comb
Construction Paper
Cord
Crepe Paper
Ditto Paper and Master Sheets (Extra)
Drinking Straws
Pine Cones
Pins
Pipe Cleaners
Plasti-Tak
Plywood
Plywood Panels
Ribbon
Rubber Bands
Sachet Powder
Salt
Sandpaper
Sequins

Lollipop Sticks
Macaroni
Magic Markers
Masking Tape
Match Sticks
Modeling Clay
Nail File
Newsprint
Nut cups
Orange Stick
Paper Clips
Paper Doilies
Paper Napkins
Paste
Pencils
Wooden Beads
Wrapping Paper
Sponge
Steel Wool
Stencil Paper
Tacks
Tag Board
Tempera
Thumbtacks
Tinsel Rope
Tissue Paper
Toothpicks
Tracing Paper
Vegetables
Water or Rubber Base Paints
Wax Paper
Whisk Broom
Wire Screening
Yarn

Additional Supplies for Level II

Clothesline
Colored Pencils
Cotton Thread
Crayolas
Embroidery Thread
Glass Tumblers
Glitter
Ink Pad
Leather Scraps
Linoleum Blocks
Needles
Silver and Gold Spray Paint
Soap Powder
Spices
Wire
Wooden Dowels
Woods of All Kinds

Additional Supplies for Levels III and IV

Band Aids
Bias Tape
Cake Mix
Chicken Wire
Nails (Assortment)
Paper Cups
Shells
Single-edged Razor Blades

- China Plates
- Cleaning Agents
- Cloth
- Crinoline
- Foil
- Soft Coal
- Staples
- Sugar
- Woven Tape

Additional Supplies for Level V

- Clear Lacquer
- Clear Varnish
- Comb
- Paint Thinner
- Plastic Wood
- Sealer
- Shellac
- Glass Etching Materials
- Material for Metal Work
- Material for Mosaics (Seeds, gravel, sawdust, etc.)
- Shellac Remover (Solax)
- Wire
- Wood Color Pencils

B. USEFUL THROW-AWAYS AND HELPFUL HINTS

- Apple Boxes
- Artificial Flowers
- Bottle Caps
- Bottles
- Broomsticks
- Buttons
- Candy Boxes
- Cardboard Tubes
- Coffee Cans
- Corks
- Corrugated Cartons
- Egg Cartons
- Envelopes
- Feathers
- Fruit Jars
- Gallon Tin Cans
- Hat Boxes
- Lollipop Sticks
- Old Felt Hats
- Old Gloves
- Old Greeting Cards
- Old Jugs
- Old Light Bulbs
- Old Road Maps
- Old Socks
- Old Toothbrushes
- Old Trousers
- Orange Crates
- Paper Bags
- Paper Plates
- Plastic Cheese Boxes
- Quart or Pint Ice Cream Containers
- Rubber Jar Rings
- Salt or Oatmeal Boxes
- Scraps of Materials
- Seed Catalogues

Magazines

Marbles

Match Boxes

Milk Cartons

Nylon Stockings

Old Calendars

Old Coats

Wallpaper

Wire Coat Hangers

Seed Packets

Shirt Cardboards

Shoe Boxes

Spools

Suit Boxes

Unusual Shells and Pebbles

Vegetable Cans

Wooden Packing Crates

Dried-out tempera may be restored by simply adding more water, allowing it to stand overnight, and then thoroughly stirring it.

Tempera paints may be used as finger paints by adding some liquid laundry starch to it.

Stucco effect on miniature buildings or model train tunnels may be obtained by sprinkling coffee grounds over glue.

Skimmed milk brushed over pencil marks fixes them permanently.
To nullify appearance of cracks in piece of chinaware, boil it in skimmed milk.

Use old ball-point pen as a stylus for embossing on aluminum foil.

Pouring plaster of Paris over your finger into the mold will keep out air bubbles.

C. SOURCES OF ARTS AND CRAFTS MATERIALS

American Art Clay Co.
Indianapolis 24, Indiana

American Handicrafts Co.
Box 1643
Fort Worth 1, Texas

Cleveland Crafts Co.
4705 Euclid Ave.
Cleveland 3, Ohio

Crystal Craft Tissue Co.
Middletown, Ohio

Miss. State Dept. of Public Welfare
Day Care Section
P. O. Box 1669
Jackson, Mississippi

Tandy Leather Company
113 South Roach St.
Jackson, Mississippi

The Handcrafters
Waupun, Wisconsin

D. RESOURCES

Arts and Crafts Companies
Association for Retarded Children
Box Factories
Boy Scouts
Building Supply Houses
Children's Magazines
Church Vacation Bible Schools
Civic and Service Clubs (Junior Auxiliary, Civitan, Shrine)
Drug Companies
Dry Good Stores
Farm Bureau
Farm Cooperatives
Florists
Garment Factories
Girl Scouts
Glass Companies
Grocery Stores
Home Demonstration Agents
Home Economics Teachers
Hospitals
Industrial Arts Teachers
Parent-Teacher Associations
Park and Recreation Personnel
Printing Companies
Public School Art Teachers
Shoe Factories
Upholstery Shops
Utility Company Consultants
Veneer Mills
X-ray Technicians (Paper, etc.)
YMCA
YWCA

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Arts and Activities. 8150 N. Central Park Ave., Skokie, Ill. $6.00 per year.

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Benson, Kenneth R., **Creative Crafts for Children.** Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1958.

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Chapman, Frederick M., **Recreation Activities for the Handicapped.** 15 East 26th St., New York 10, N. Y.: The Ronald Press Co., 1960. $5.75.

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Coping Saw Carpentry. Cleveland, Ohio: Harter Publishing Co.

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Enameling on Copper and Other Metals. Thomas E. Thompson, 1539 Deerfield Rd., Highland Park, Ill.

Family Circle—Every Woman's Family Circle, Mount Morris, Ill.

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Glover, Dr. B. L. J., and Frank V. Chambers, **Perfect Negatives.** Philadelphia.

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- **Part Art**—by Irena Maris
- **Creative Costumes**—by Nancy Crane
- **Gifts Children Can Make**—by Ruth Karb
- **Art Recipes**—by Doris E. Foley
- **Puppets for All Grades**—by Louise Binder Scott, Marion E. May, and Mildred S. Shaw
- **Stories that Stick**—by Louise Binder Scott
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Lewis, Shari, and Lillian Oppenheimer, Folding Paper Puppets. E. Washington Sq., Philadelphia 5, Pa.: J. P. Lippincott Co.

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